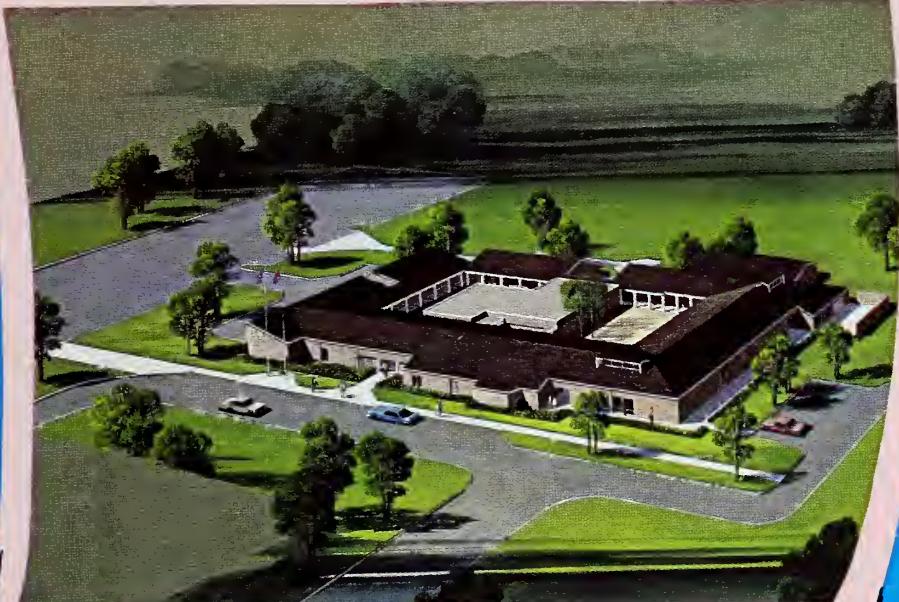




Established 1965

1975 - 77

**ROBESON  
TECHNICAL  
INSTITUTE  
CATALOG**



Robeson Technical Institute publishes this catalog in order to provide students and others with information about the institute and its programs. The provisions of the catalog are not to be regarded as an irrevocable contract between student and R.T.I. The institute reserves the right to change any provisions, requirements or schedules at any time or to add or withdraw courses or program offerings.

Every effort will be made to minimize the inconvenience such changes might create for students.

Robeson Technical Institute is an Equal Opportunity Institution.

# **ROBESON TECHNICAL INSTITUTE**



**A UNIT OF THE DEPARTMENT  
OF COMMUNITY COLLEGES**

**GENERAL CATALOGUE**

**1975-1976**

**VOLUME 6**

**1976-1977**

**FEBRUARY 1975**

**ROBESON TECHNICAL INSTITUTE**  
**DRAWER A**  
**LUMBERTON, N. C. 28358**  
**TELEPHONE 919-738-7101**

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# INSTITUTIONAL CALENDAR

1975-1976

## FALL QUARTER (55)

September 2 .....	Freshman Orientation and Registration
September 3 .....	Senior Orientation and Registration
September 4 .....	Classes Begin
November 19 .....	End of Fall Quarter

## WINTER QUARTER (55)

November 21 .....	Registration
November 24 .....	Classes Begin
November 27, 28 .....	Thanksgiving Holidays
December 22-January 2 .....	Christmas Holidays
January 5 .....	Classes Resume
February 24 .....	End of Winter Quarter

## SPRING QUARTER (55)

February 26 .....	Registration
February 27 .....	Classes Begin
April 16-19 .....	Easter Holidays
May 17 .....	End of Spring Quarter

## SUMMER QUARTER (51)

May 19 .....	Registration
May 20 .....	Classes Begin
May 31, June 1, 2 .....	Instructor's Workshop—Student Holidays
July 5 .....	Holiday
August 4 .....	End of Summer Quarter
August 6 .....	Commencement
August 9-20 .....	Instructor's Vacation

# INSTITUTIONAL CALENDAR

1976-1977

## FALL QUARTER (55)

September 7 .....	Freshman Orientation and Registration
September 8 .....	Senior Orientation and Registration
September 9 .....	Classes Begin
November 24 .....	End of Fall Quarter
November 25, 26 .....	Thanksgiving Holidays

## WINTER QUARTER (55)

November 30 .....	Registration
December 1 .....	Classes Begin
December 20-31 .....	Christmas Holidays
January 3 .....	Classes Resume
March 1 .....	End of Winter Quarter

## SPRING QUARTER (55)

March 3 .....	Registration
March 4 .....	Classes Begin
April 8-11 .....	Easter Holidays
May 23 .....	End of Spring Quarter

## SUMMER QUARTER (51)

May 25 .....	Registration
May 26 .....	Classes Begin
May 30, 31, June 1 .....	Instructor's Workshop—Student Holidays
June 2 .....	Classes Resume
July 4 .....	Holiday
August 10 .....	End of Summer Quarter
August 12 .....	Commencement
August 15-26 .....	Instructor's Vacation

# ORGANIZATION

## Board of Trustees

I. J. Williams .....	Chairman
John L. Carter .....	Vice-Chairman
R. Craig Allen .....	Secretary

Appointed by Commissioners of Robeson County:	Expiration of Term
Gurney S. Kinlaw .....	June 30, 1981
Vernon Floyd .....	June 30, 1975
B. C. McBee .....	June 30, 1979
J. A. Singleton, Jr. ....	June 30, 1977

Appointed by Robeson County Boards of Education:	Expiration of Term
John L. Carter .....	June 30, 1981
A. D. Lewis, Jr. ....	June 30, 1979
Guy P. McCormick .....	June 30, 1977
I. J. Williams .....	June 30, 1975

Appointed by Governor of North Carolina:	Expiration of Term
Gene Ballard .....	June 30, 1979
John W. Oxendine .....	June 30, 1975
Scott Shepherd .....	June 30, 1977
Glenn A. Maynor .....	June 30, 1981

## Administrative Personnel

R. Craig Allen .....	President
Ronald C. Brown .....	Director of Admissions
Hubert F. Bullard, Jr. ....	Director of Community Service Training
Cora Dean Brewington .....	ABE & High School Outreach Representative
Lou Ann Cleveland .....	Librarian
Marcus Everitte .....	Director of Library
John Gudauskas .....	Business Office Clerk
Russell E. Hellekson .....	Business Manager
George E. Howard .....	Dean of Instruction
Judith Ann Jones .....	Counselor
Harmon Kivett .....	Area Coordinator
James Willis Lawson .....	Director of Career Education
R. Frank Leggett, Jr. ....	Director of Enrichment Education
Max H. Lippard .....	Administrative Assistant
Eddie M. Locklear .....	Director of Veteran Affairs & Placement
Harold B. Locklear .....	ABE & High School Outreach Representative
Hollis Locklear .....	Coordinator of Equipment and Evening Programs

Marie M. Malloy .....	Director of Community Affairs
T. Eugene Mercer .....	Director of Basic Education
Robert L. Ostrand .....	VA Representative
Harold B. Thompson .....	Director of Occupational Extension
Fred G. Williams, Jr. .....	Dean of Student Services

### **Artist-in-Residence**

Lawrence Clifford Norris .....	Artist-in-Residence
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### **Bookkeeping**

Rosa W. Cooper .....	Accountant
Lynne R. Parker .....	Assistant to Accountant

### **Supporting Staff**

Lola B. Bracey .....	Secretary to President
Carolyn Britt .....	Secretary to Library & Learning Lab
Sarah C. Brown .....	Secretary to Faculty
Ann R. Carter .....	Secretary to Administrative Assistant
Judy B. Conner .....	Secretary to Dean of Student Services
Joseph Couser .....	Maintenance
Bonnie Cox .....	Secretary to Faculty
George F. Currie .....	Maintenance
Virgie Currie .....	Maintenance
Cathy N. Fields .....	Secretary, Basic Education
Mary P. Hughes .....	Secretary, Enrichment Education
Boyd Humphrey .....	Supervisor, Maintenance
Howard Humphrey .....	Maintenance
Roy Humphrey .....	Maintenance
Georgia Langley .....	Secretary to Director of Career Education
Marlie Locklear .....	Security Guard
Jackie A. Lovette .....	Receptionist
Prentis Lowery .....	Security Guard
Linda McCoy .....	Veteran Services Officer
Arthur McMillan .....	Maintenance
Anna K. Maynor .....	Secretary, Director of Community Affairs
Carol Powers .....	Secretary, Business Manager
Sharon N. Rice .....	Secretary, Student Services
Nell Reising .....	Secretary, Occupational Extension
Vickie J. Walters .....	Secretary, Director of Admissions
Juanita Worrell .....	Secretary, Dean of Instruction

## Faculty

Doris P. Bartley .....	Learning Lab
Betty M. Biggs .....	Cosmetology
Betty Joan Bissell .....	English
Joe B. Blackmon .....	Learning Lab
Sue Bloodsworth .....	Practical Nursing
Sarah M. Britt .....	Business Department
William Brown .....	Related Subjects
Henry Bruce .....	Sewing Machine Mechanics
Lewis Bryan .....	Machinist
William M. Bryan, Jr. ....	Welding
William E. Coleman .....	Electrical Installation
Jim DeCoursey .....	Police Science
John D. Downs .....	Business Education
Roy Hedgpeth .....	Carpentry
Bonnie Hunt .....	English
Helen K. Ivey .....	Business Education
Eileen S. Jones .....	Cosmetology
Louis LaMotte .....	Psychology
Gary L. Locklear .....	Business Education
Silas M. McColl .....	Automotive
Pauline H. McNair .....	General Education
Eugene Madison .....	Electrical Installation
William S. Morris .....	Radio-TV
Perry Musselwhite .....	Learning Lab
Elizabeth T. Nye .....	Practical Nursing
Kenneth W. Pauli .....	English
George Green Pope .....	Automotive
Ann M. Revels .....	Business Education
Norman Rosser .....	Masonry
Betty Ruth .....	General Education
Frances Scott .....	General Education
Mark D. Stephens .....	Accounting
James Taylor .....	Coordinator, Learning Lab
Curtis K. Watson, Jr. ....	Police Science
Robert E. West .....	Math
Grady A. Young, Jr. ....	Air Conditioning & Refrigeration



## HISTORY

Robeson Technical Institute officially opened its doors on July 1, 1965, as an extension of Fayetteville Technical Institute, Fayetteville, North Carolina. The establishment of the school in the Barker-Ten Mile area of Robeson County marked the fulfillment of a long-felt need to provide post-secondary training at the technical and vocational levels.

In the fall of 1967, Robeson Technical Institute became an independent institution operated through a contractual arrangement with the Robeson County Board of Education. A local Board of Trustees was appointed and consisted of eight members, four appointed by the Robeson County Board of Education, and four appointed by the Robeson County Commissioners.

On July 1, 1971, through provisions of the North Carolina constitutional amendments as passed by the voters in the general elections in November of 1970, Robeson Technical Institute's legal status changed to a chartered institution. The number of trustees increased to twelve with the additional four members being appointed by the Governor.

The school, under the administration of the State Board of Education, Department of Community Colleges, is supported by public funds from local, state, and federal sources.

From the very beginning, R.T.I. began to fulfill its purpose of providing education at the adult level for all interested persons in Robeson County. It offered two full-time curriculum courses for high school graduates: Farm Machinery Mechanics, a one-year program leading to a diploma, and Secretarial Science, a two-year program leading to an associate degree.

During that first year, the Learning Laboratory, designed to provide educational opportunities to adults at their convenience and to meet their needs, came into existence. Also developed during the first year were extension courses for upgrading skills, for personal enrichment, and for improving basic education. Other classes offered training to persons in new or expanding industries. The school was assigned programs under the Manpower Development Training Act.

In succeeding years, the expansion of full-time and part-time programs required additions to the campus facilities and required the use of centers scattered over the county.

In 1973, R.T.I. moved into a new facility, located north of Lumberton, at the intersection of Highways 301 and I-95. The site includes 70 acres of land, enough for needed expansion. A one-story brick structure (a complex of seven buildings) contains approximately 48,000 square feet and houses the library, offices, classrooms, laboratories, special skill areas, and a student lounge. Dedication ceremonies and an open house were held in May, 1974.

The total investment for the new facility and the equipment approximates over one and one-half million dollars. Funds were secured from the Economics Development Administration, Coastal Plains Regional Commission, and Robeson County.

During the 1973-74 school year, 5,697 persons participated in some form of educational programs. The following year 4,686 attended classes during the fall quarter alone.

Contracts were awarded in December, 1974, for Phase II of the building program. Two more buildings, with approximately 30,000 square feet, should be ready for occupancy by 1976. Even then, both the old and new campuses will be used in order to meet the demands.

The foresight and dedication of many has given this area a thriving institution that looks ahead to even more dedicated service in the future.

## PHILOSOPHY, PURPOSE, AND OBJECTIVES

Robeson Technical Institute subscribes to the philosophy that every individual has the right to pursue further education compatible with his interests and abilities. Therefore, as an open-door institution, it provides a wide range of educational programs of general occupational, and cultural education to meet the needs of adults within the region it serves. The Institute helps promote continued industrial, business, and economic growth; and further, it assists in the development of cultural activities which are of interest throughout the service area.

The purpose of Robeson Technical Institute is to make available for adults a broad range of educational opportunities providing for individual backgrounds, interests, abilities, financial resources, career choices, and other needs. To achieve this purpose, the Institute provides educational opportunities to enable each individual to develop to the maximum extent of his abilities, needs, and goals compatible with the needs of a democratic society. Programs will continue to be developed which will afford the individual the opportunity to understand his needs for continued growth and development in the areas of mental and physical health, cultural, social, civic, and moral responsibilities, creative expression, aesthetic appreciation, economic insight, worthwhile leisure activities and career aspirations.

To achieve these purposes, Robeson Technical Institute has the following specific objectives:

1. To provide general educational opportunities for adults regardless of their previous educational experiences.
2. To provide certificate, diploma, and Associate Degree programs to prepare students for employment in various occupations.
3. To provide leadership and to serve as a center to foster cultural, economic and social development in the community.
4. To provide cooperative co-educational programs with various governmental agencies for the disadvantaged and handicapped citizens of this area.
5. To provide short-term occupational courses for adults who need retraining or additional job skills.
6. To provide counseling and other guidance services to meet individual needs of the citizens of the area.



## GENERAL INFORMATION

### Accreditation

Robeson Technical Institute is a tax supported, public, non-profit school. It is accredited by the North Carolina State Board of Education and is a candidate for accreditation with the Southern Association of Colleges and Schools. All programs offered by the Institute have been approved by the Veterans Administration and by the North Carolina Department of Vocational Rehabilitation. The Practical Nursing program is approved by the North Carolina Board of Nursing, and the Cosmetology program is approved by the North Carolina State Board of Cosmetic Art Examiners.

### Library

The Robeson Technical Institute Library is located near the student commons where it is convenient to all students. The Library has a growing collection of books and materials, most of which are related to the Degree and Diploma programs offered by the Institute. These are selected by a media specialist in consultation with faculty, students, and administrative personnel. In addition to the book collection, the Library subscribes to approximately 120 periodicals and 12 newspapers.

Audiovisual materials and equipment are housed in the Library. The Library is open to persons in business, industry, and the community for reference materials not found in other area libraries. All students and faculty members are encouraged to use the Library. The Library is open from 8:00 a.m. to 10:00 p.m., Monday—Thursday and 8:00 a.m. to 5:00 p.m. on Friday.



## **STUDENT SERVICES**

Robeson Technical Institute provides many personal services designed to make the educational experiences of its students profitable and satisfying. The faculty and administration recognize that the central purpose of the Institute is to provide an environment wherein each student may achieve maximum development —intellectually, socially, and physically. The services, organizations, and activities are provided as means of contributing to the total growth of the individual.

### **Counseling Service**

Professionally trained counselors are available for vocational, academic, and personal counseling for both day and evening students. Students are encouraged to make use of this service at any time. A counselor is always available in the Student Services office.

Each full-time student has a faculty advisor. The advisor is the student's "anchor" or formal continuing contact with the institution during his stay at R.T.I. The advisor is available to discuss goals, academic problems, and specific course planning as the need arises. Advisors confer with each advisee a minimum of once each quarter in an effort to maintain appropriate progress throughout the year.

### **Testing Service**

Each applicant is given a placement test battery which constitutes both an entrance requirement and a counseling tool for placement. These tests are given to all full-time applicants enrolling for the first time. Other testing services are available upon request. All testing is provided at no cost to students.

### **Financial Assistance**

Information and applications for financial assistance can be secured from the Director of Admissions in Student Services.

### **Tutorial Program**

Tutoring service is available for students who need special assistance. Students should contact their faculty advisor or the Student Services office for more information.

### **Placement Service**

The Placement Service is designed to assist students and graduates in their search for either temporary or career job opportunities. A Student Services counselor maintains contact with employers who are looking for qualified applicants and schedules interviews on and off campus throughout the year. Students and alumni are encouraged to use this service as often as they wish.

### **Health Service**

Robeson Technical Institute, a commuter institute, maintains no health facilities other than first aid equipment. The responsibility for medical services rests with the student and his parent or guardian.

Confidential records concerning the general health or physical disabilities of students are maintained in the Student Services office. Appropriate faculty members are informed in a confidential manner of special disabilities of students with whom they come into contact when such information may be vital to the welfare of the student. Emergency facilities are available at Southeastern General Hospital, Lumberton, and a registered nurse is on the school campus or on call during the school day.

## **Orientation of Freshmen and Transfers**

Orientation is planned to welcome entering students and to provide a smooth and successful adjustment to the school and its personnel. The program is designed to acquaint students with academic policies and co-curricular activities, with fellow students and the school facilities.

## **Student Handbook**

A student handbook, issued at Orientation, is prepared by Student Services with the aid of interested faculty, staff, and Student Council members. The Handbook is a guide for students in acquainting them with practices and procedures of the Institute. Copies are on hand at all times in the Student Services office.

## **Student Records**

Transcripts of the students' courses and grades are maintained in the office of the Director of Admissions. Transcripts are sent to agencies or institutions upon written request of the student.

## **Housing**

The Institute does not operate dormitory facilities nor does it assume responsibility for housing. Upon request Student Services personnel assist students in locating adequate facilities in the vicinity. The Institute does not accept responsibility for student conduct or activities off the school campus except for school-sponsored activities.

## **Graduation**

The Director of Admissions reviews records for each graduate to determine that all qualifications have been met. Among items checked are (1) required courses, (2) credit hours, (3) financial obligations to the Institute, and (4) library obligations. A minimum quality point average of 2.0 is required for diplomas and degrees.

Commencement exercises are held in August at the end of the fourth quarter. Caps and gowns and invitations are ordered in the spring. Class rings may be ordered in the spring and in the fall.

Taking an appropriate part in the graduation exercises is an expected requirement for receiving a diploma or degree from Robeson Technical Institute. All students are expected to wear the complete appropriate attire specified by the Institute unless otherwise approved by the Dean of Student Services. The \$15 graduation fee covers cost of the diploma, cap, and gown. Those students approved to graduate in absentia are not exempt from this fee.

## **Honors**

The Dean's List and the President's List are published at the end of each quarter. All full-time students who have made all B's and above are on the Dean's List. Students who make straight A's for the quarter are on the President's List.

Graduates who have a cumulative average of 3.5 and above are recognized at Commencement as graduating with honors.

Commencement marshals shall consist of the seven (7) rising seniors with the highest academic average at the end of their first year of studies. The chief marshal shall be the rising senior with the highest academic average.

## **Awards**

Appropriately inscribed plaques are presented at Commencement to the graduate with the highest average in the Associate Degree programs and to the graduate with the highest average in the one-year Diploma programs.

Membership in Who's Who in American Vocational and Technical Schools is limited to students in the one-year programs. Students cited for this honor receive certificates of membership at Commencement.

Certificates for membership in Who's Who Among Students in American Junior Colleges are awarded at Commencement. This honor is limited to students in the two-year programs.

A silver cup, sponsored by Robeson Office Supplies, is awarded the best all-round graduate in the business area. Each year names of winners are engraved on the cup, which is retained in the school. A small replica is given to the recipient of this award.

The Wall Street Journal Achievement Award is presented to the most outstanding business student, who is chosen by the faculty members in the Business Department.

Framed certificates, appropriately inscribed, are presented to those students who have shown exceptional service to Robeson Tech. Any graduate is eligible for this award. Additional awards made eligible to graduates may be announced as they become available.

## **STUDENT ACTIVITIES**

### **Student Government**

The Student Government Association is composed of all curriculum students who are enrolled at Robeson Technical Institute. All SGA members are encouraged to be active participants in student affairs and to voice opinions and thoughts through their organization.

Officers and representatives of the SGA are elected in October and provide leadership for the student body. The SGA sponsors athletic and social activities that enhance student campus life. Students are involved in school affairs, with active participation on various advisory and ad hoc committees. Representatives of the SGA usually attend state conferences of the student government organization in the Community College System.

A budget governing the student activity fee for the following school year is recommended by the SGA in the spring. The budget usually covers the school newspaper, annual, special projects, student insurance, socials and dances, school pictures, and ID cards.

### **Field Day**

Student Services sponsors a Field Day in the early fall. Competitive outdoor activities and sports and a cook-out are arranged. SGA usually sponsors another Field Day in the spring.

### **Annual**

The annual, *The Directions*, gives a pictorial view of the students and their activities of the year. Any SGA member is eligible for participation on the yearbook staff.

## **Newspaper**

The R.T.I. Echo, the student newspaper, is published quarterly and provides notice of significant developments and achievements related to the students and their activities of the year. Staff members are chosen from volunteers from the SGA.

## **Athletics**

In the past R.T.I. has had basketball and softball teams playing in the local league. These and other sports may be organized upon request of a sufficient number of students. The R.T.I. campus provides room for expansion and is adding those activities requested that are within budgetary limits and school policy.

## **Miss R.T.I. Pageant**

The Miss R.T.I. Pageant is held each fall. The winner is the school representative at functions and parades during her reign. Contestants are judged on beauty, poise, and personal interviews.

## **Special Events**

The Student Government may sponsor other activities such as socials, films, speakers, and related activities that are of interest to the students. When such occasions arise, students are notified in advance and are encouraged to participate.

## **Clubs**

The Student Government sponsors formation of clubs according to student interest. Information may be secured from Student Services or president of the SGA.

## **School Colors**

The official colors of Robeson Technical Institute are royal blue and white.



# **Admissions**

Robeson Technical Institute maintains an "open door" policy for all applicants who are high school graduates or who have reached their eighteenth birthday. The Institute serves all students regardless of race, color, creed, sex, or national origin.. All prospective students may be admitted to the different curricula based upon individual preparation and readiness.

## **ADMISSION REQUIREMENTS—CAREER EDUCATION PROGRAMS**

### **Full-time Students**

Two-year programs for Associate of Applied Science Degree

1. High school graduate or the equivalent
2. Application
3. Transcript of previous education
4. Completion of standardized test battery
5. Complete medical history form
6. Complete residence form
7. Counseling interview, where applicable

One-year programs for Diploma and Certificate Programs

1. High school graduate or the equivalent is normally required for admission; however, exceptions may be made in certain circumstances.
2. Application
3. Transcript of previous education
4. Completion of standardized test battery
5. Complete medical history form
6. Complete residence form
7. Counseling interview, where applicable
8. Additional requirements for Practical Nursing
  - a. High school graduate or the equivalent
  - b. Medical examination by a physician
  - c. Interview with, and approval of, nursing department supervisors
  - d. Two character reference letters
  - e. Proof of recent innoculations for tetanus
9. Additional requirements for Cosmetology
  - a. High school graduate or the equivalent
  - b. Medical examination by a physician within 30 days prior to registration
  - c. Serological lab test, tuberculin skin test, or chest x-ray within 30 days prior to registration

The following procedures will be followed for registering full-time students:

1. Complete application form
2. Provide transcript of previous education
3. Complete medical history form
4. Complete standardized test battery
5. Provide any additional requirements for specific course

6. Personal reference letter for transfer students
7. Counseling interview, where applicable
8. Review by admissions officer
9. Further counseling, if necessary
10. Letter of acceptance to specific course
11. Notification of day and time to report for registration

### **Part-time Students**

Adult students may be admitted under special provision which allows them to take up to ten quarter hours of credit courses before completing admission requirements. However, all admission requirements must be met by the time the student has completed ten quarter hours of work if credit is to be granted.

Students who do not earn a "C" or better average on the first ten credit hours attempted will be referred to a counselor for consultation before registering for additional courses.

The following procedures will be followed for registering part-time students :

1. Complete application
2. Provide high school transcript from post-secondary institution, if attended
3. Register for courses
4. Pay tuition
5. Admit as special student

### **Credit By Transfer**

Robeson Technical Institute may accept credits earned from technical institutes and colleges. Only course grades of "C" or better will be accepted and such courses must parallel the content of R.T.I. courses. Students who wish to transfer from other colleges and technical institutes must be eligible to return to the institution last attended.

The Director of Admissions will evaluate transcripts of previous education to determine the transfer credit allowable. This evaluation will be made at the time of acceptance and the student and his advisor notified in writing accordingly. Transfer credits will be posted to the student's permanent record as soon as the student enrolls.

A personal reference letter from the former post-secondary school will be required for transfer acceptance.

### **Credit By Examination**

Advanced placement is offered to students who, because of their demonstrated abilities, are qualified to accelerate their studies. To earn advanced placement, a student may take a proficiency examination in any subject which he can demonstrate a mastery of theory and practical application. Total credits earned by examination shall not exceed 25 credit hours.

The following procedures will serve as guidelines in making application for all proficiency examinations.

1. The following persons will not be permitted to take proficiency examinations:
  - a. Persons who have taken that proficiency examination previously.
  - b. Persons who have enrolled in and dropped from a course.
  - c. Persons who were enrolled in and failed a course.
2. Make application to the Dean of Student Personnel Services for the proficiency examination.

3. The Dean of Student Personnel Services will review the student's background and recommend or not recommend that the application be forwarded to the Director of Career Education.
4. The Director of Career Education will evaluate the application and consult with personnel in the appropriate subject area. Upon approval of the application, an examination in theory and practical (where applicable) will be given.
5. After evaluation of the examination by the instructor and the Director of Career Education, it is forwarded to the Dean of Instruction with appropriate recommendations.
6. The Dean of Instruction will certify to the Dean of Student Personnel Services appropriate credit earned.
7. Credit earned by proficiency examination will be entered on the student's transcript as credit hours passed. No grade or quality point value will be assigned. Credit earned by proficiency examination will not be used in determining QPA.

## **CONTINUING EDUCATION**

(Adult Basic, High School, Adult Enrichment, Occupational Extension)

The "open door" policy is observed regarding requirements for admission to Continuing Education classes. Any person who is a high school graduate, or at least 18 years of age and not currently attending a public school, is eligible to enroll.

### **Additional Requirements—High School Program**

1. For admission to the Adult High School Diploma Program, a person must be at least 18 years of age and out of public schools for at least six months. Upon written recommendation of the local school superintendent, individual public school dropouts between the ages of 16 and 18 may be admitted as students with special needs.
2. The entrance level of each student applying for admission to the Adult High School Diploma Program shall be determined in one of the following manners:
  - a. The procedure shall be to apply the scores on any appropriate achievement battery approved under the National Defense Education Act, Title V (a) Testing, North Carolina, to the 50th percentile level for end-of-year norms to determine entrance level. Thus, an applicant with a percentile rank of 50 on English for eleventh grade end-of-year norms would be classified as a senior in English for course-of-study purposes; and so on for other subject fields.
  - b. A certified transcript from a state or regionally accredited secondary school showing courses and years of work completed.

## **HIGH SCHOOL EQUIVALENCY PROGRAM**

This program is offered by the Institute for adults who did not complete their high school education. A series of tests is used to measure general educational competence. Successful candidates are awarded a certificate recognized and generally accepted as equivalent to a high school diploma.

The tests are known as the Test of General Educational Development (GED) and are designed to measure a person's knowledge and skill.

### **Applications for Testing**

All applicants for GED testing shall be referred to the Learning Laboratory. Applicants shall complete the following steps:

1. Complete an application for admission to High School Equivalency Examinations and/or Application for High School Equivalency Certificate.
2. Complete pre-test given by Learning Laboratory.
3. Pre-test recommendation shall then go to tester on those passing test.
4. Pre-test recommendation shall go to Director of Basic Education on those with questionable scores.
5. Secure transcript of previous education.

### **Role of the Director of Basic Education**

The Learning Lab shall forward to the Director of Basic Education all applicants they feel may have problems in passing the GED test. The Director shall review all available information and interview these applicants personally. After careful review of these applicants' background, the Director shall recommend to the applicant the most appropriate action for him to take which may include but not be limited to the following:

- a. Enroll in an ABE class
- b. Enroll in a high school class
- c. Enroll in the Learning Laboratory
- d. Take the GED examination

### **Role of the Chief Testing Officer**

1. To arrange an agreeable time for testing with Director of Basic Education
2. To accept applicants from Learning Lab and Director of Basic Education
3. To administer and score the GED tests
4. To refer all scores to the Department of Public Instruction for determination of whether or not the scores are acceptable for the awarding of the certificate
5. Maintain all GED records on the applicants which are tested and are required by the Robeson Technical Institute and the Department of Public Instruction

Post-test interviews shall be done by Student Services for students passing the GED tests and by the Director of Basic Education for those who failed to pass the examination.

Only in emergencies or special cases will the test be given at a time different from regularly scheduled times set by the Director of Basic Education and the tester.

## **SPECIAL CONDITIONS**

Any person who has been convicted of violation of, or has been known to violate, the North Carolina Uniform Narcotic Drug Act as a pusher (seller) or user of drugs listed as illegal shall not be admitted to Robeson Technical Institute, except with the permission of the Board of Trustees of the Robeson Technical Institute.

Any person who has been indicted for violation of the North Carolina Uniform Narcotic Drug Act, or for which there is good reason to believe that the person has violated the N. C. Uniform Narcotic Drug Act, will have his application for admission to Robeson Technical Institute held in abeyance until such time as his case is cleared in a court of law, or his name can be cleared through ample evidence supplied by the applicant or his representative.

## **REGISTRATION**

Students are expected to register for course work at the time specified each quarter in the school calendar. Formal registration for all curriculum courses is officially closed at the end of ten calendar days after the first scheduled day of class.

### **Residence Status for Tuition Payments**

In accordance to the North Carolina General Statute 116-143.1: Your current residential classification, for purposes of applicable tuition rates, is required to be changed if, since original establishment of your current classification, your state of legal residence has changed.

(1) If you currently are classified as a nonresident for tuition purposes, it is your right to petition for a change in classification to that of resident if you claim that you are now and, for at least the twelve-month period immediately preceding the date of such petition, have been a legal resident of the State of North Carolina. If it is determined that in fact you have been a legal resident for the required twelve-month period, the effective date of change in applicable tuition rates shall be the next semester, quarter, or term following the date of change in facts which required the change in classification.

(2) If you currently are classified as a resident for tuition purposes, it is your obligation to petition for a change in classification to that of a non-resident if you have reasonable basis for believing that change in facts requires such a change in classification. Failure to fulfill this obligation may result in appropriate disciplinary action including, but not necessarily limited to, cancellation of enrollment. If it is determined that in fact you have become a nonresident, the effective date of change in applicable tuition rates shall be the next semester, quarter, or term following the date of change in facts which required the change in classification.

For further information: "Regulations concerning the classification of students by residence for purposes of applicable tuition differentials, are set forth in detail in 'A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes.' Each enrolled student is responsible for knowing the contents of that manual, which is the controlling administrative statement of policy on this subject. Copies of the Manual are available on request at the Business Affairs Office or Student Services Office."

## **EXPENSES**

Robeson Technical Institute receives financial support from local, state and federal sources, allowing each student an educational opportunity at minimum cost. Tuition fees are set by the State Board of Education and are subject to change without notice. The payment of fees for each quarter is required at registration.

### **Tuition for Curricular Student**

Tuition for all full-time curricular students, who are residents of the state of North Carolina is \$33 a quarter. Students taking less than 12 quarter hours are charged a tuition of \$2.75 per quarter credit hour. (One quarter credit hour is equal to one hour of class lecture per week, or two hours of manipulative laboratory per week.)

Tuition for an out-of-state student is \$137.50 per quarter. An out-of-state student enrolled on a part-time basis pays a tuition of \$11.45 per quarter credit hour.

Tuition fees for audit and developmental students are the same as tuition for regular curricular students.

### **Student Activity Fee**

#### **Fall, Winter, and Spring Quarter**

Each student enrolled in twelve quarter credit hours or more (full-time) will pay a \$5 student activity fee per quarter. Part-time students will pay activity fees according to the following schedule:

1-4 Quarter Credit Hours – \$1.50
5-7 Quarter Credit Hours – \$2.00
8-11 Quarter Credit Hours – \$3.00

#### **Summer Quarter**

Each student (full-time or part-time) will pay a \$1 student activity fee.

The activity fee is due and payable at the above stated amount at the registration for each quarter. The fee is non-refundable.

For all full-time students, \$3 of this fee will go toward accident insurance. The accident insurance will cover hours in school and transportation to and from school. Part-time students desiring this insurance may also receive this insurance by making payment to the business office at the time of registration. This cost is non-refundable. Part-time students are urged to take advantage of this insurance, since neither the technical institute nor the state of North Carolina carries insurance to cover any student for accidents or otherwise.

The remainder of the student activity fee is to be used by the Student Government Association for such items as student publications, entertainment, athletic equipment, and other activities.

#### **Breakage Fee**

Breakage, damage, or loss due to negligence, carelessness, or other mishandling of school supplies, materials, or equipment by students is the responsibility of such students. They will be required to pay for such items and may be subject to disciplinary action.

## **Graduation Fee**

A graduation fee of \$15 is paid when registering for the last quarter of enrollment prior to Commencement Exercises. This fee covers cost of cap, gown, and diploma.

## **Textbooks**

Students are responsible for obtaining the required textbooks and supplies. A bookstore on the Robeson Technical Institute campus is maintained from which students may purchase the necessary books and supplies.

## **Student Insurance**

A group policy providing insurance protection is maintained in effect by the Institute. The cost is covered from the Activity Fee for all full-time students, the payment of which has been approved by the Student Government Association.

It is in the best interest of all students to provide some measure of insurance protection. Those who do not pay the \$5 activity fee may purchase this accident insurance for \$3.00 per year.

## **Late Registration Fee**

A late registration fee of \$5 may be charged curriculum students who register after the announced registration day.

## **Refund Policy**

Refunds for post-secondary students shall be made only if the student is, in the judgment of the institution, compelled to withdraw from school for unavoidable reasons. In such cases two-thirds of the tuition may be refunded if a student withdraws within the first ten calendar days of the quarter. In cases where courses or curricula fail to materialize, all of the student's tuition shall be refunded.

The State Board has authorized modification of the tuition refund policy so that veterans or war orphans receiving benefits under U. S. Code, Title 38, Chapters 33 and 35, can be refunded the pro rata portion of the tuition fee not used at the time of withdrawal of such students.

## **Business Office**

The payment of fees, sale of books, supplies, and materials, receipt of loans, and the payment of refunds are major responsibilities of the Business Office. Office hours are 8:30 a.m. to 5 p.m. Monday through Friday.

## **FINANCIAL ASSISTANCE**

Robeson Technical Institute's financial aid program exists to ensure that no qualified student will be denied the opportunity to continue his education because of economic disadvantages. Through a program of loans, grants, scholarships, work-study positions, and part-time employment, the student enrolled at Robeson Tech is able to supplement his own resources and the resources of his family in order to complete a course of study. The Student Financial Aid Office, however, firmly believes that the primary responsibility for financing the student's education rests with the family.

The family is expected to contribute according to its income and assets, just as the student is expected to share in this responsibility through savings, summer work, and part-time employment if necessary.

All federal aid programs require the assessment of financial need based on parental ability to contribute toward the educational expenses.

The student is the focus of the program in the Student Financial Aid Office. Every effort is made to be of genuine assistance in helping the student to resolve his financial difficulties.

Application forms and additional information may be received by writing or visiting the Financial Aid Office at Robeson Technical Institute.

## **INSTITUTIONAL SCHOLARSHIPS**

A number of scholarships are offered to students attending Robeson Technical Institute by civic organizations, service clubs, and individual donors. These awards are made on the basis of need on a first-come basis subject to the availability of funds. No award is made until a student has completed all of the admission requirements and has been accepted for enrollment.

The Financial Aid Committee is composed of two representatives from the staff and faculty, and one representative from the Business Office. The committee meets periodically, beginning in the early spring, to consider requests and to make awards.

Students who encounter financial difficulty at any time during the year should confer with the Financial Aid Officer in Student Services.

## **Social Security**

Benefits may be paid to students under 22 years of age who have one or more deceased parents that were covered by Social Security. Contact the nearest Social Security office for further information.

## **Vocational Rehabilitation**

Any physically handicapped person may be eligible for financial assistance covering fees, books, and supplies. If a prospective student has any physical limitation, the student may contact the nearest office of the N. C. Vocational Rehabilitation, or make his request through the office of Student Services.

## **James E. and Mary Z. Bryan Student Loan Plan**

Students may borrow up to \$7,500 for undergraduate study or vocational/technical training. Loans are not available for graduate or professional study. The maximum loan for an academic year cannot exceed the total cost of education less other financial aid received. The amount of each loan is determined by the Foundation after consideration of the school's recommendation. The annual percentage rate is 1% interest accruing during enrollment, grace and deferment periods and 7% interest during the repayment period. Student borrowers must sign a promissory note for each loan and the notes require co-signers.

## **Veterans and War Orphans**

Most curriculum programs offered by Robeson Technical Institute are approved by the Veterans Administration for enrollment by veterans and/or war orphans under Chapter 35, Title 38, United States Code. Prospective students should contact their local Veteran's Service Office or the Student Services office at Robeson Technical Institute prior to beginning classwork in order to avoid any delay in benefits.

## **Comprehensive Employment and Training Act (CETA)**

Funds are available to students from low income families through the Employment Security Commission. The student may be paid a subsistence allowance, travel, dependent allowance, and training allowance. Contact your nearest Employment Security Commission office.

## **Plan Assuring College Education (PACE)**

This special state-wide summer program provides jobs near the homes of North Carolina students. It assures the eligible work/study student of summer employment, with the understanding that a substantial portion of the earnings must be saved for college expenses the following academic year. Students who are interested in this program should contact their high school guidance counselor or the Director of Financial Aid at Robeson Technical Institute.

## **College Work/Study Program**

Under this federally-funded program, students from low income families may be employed on a part-time basis by the Institute to help pay for their college expenses. The jobs may be on campus, or off campus with non-profit agencies or organizations. To be eligible, an applicant must be a high school graduate and must need the earnings to begin or continue training on a full-time basis.

## **Basic Educational Opportunity Grant Program (BEOG)**

The Basic Educational Opportunity Grant Program is a Federal aid program designed to provide assistance to those who need it to attend post-high school educational institutions.

The maximum award a student could receive under this program is \$1,400 less the amount the student and his family are expected to contribute toward the cost of his education (family contribution), and not to exceed one-half the total cost.

Your actual grant, however, may be less than this maximum award. The family contribution is determined by filling out a BEOG application form and mailing it in the provided envelope. A BEOG application form can be obtained from high school counselors, at post offices, libraries, or by writing to the student Financial Aid Office at Robeson Technical Institute.

## **Bruce Boney Stephens Loan Fund**

Family and friends of Bruce Boney Stephens have provided as a memorial, a sum of money, which is to be used as a loan fund for assisting deserving students in their education.

## ROBESON TECHNICAL INSTITUTE STUDENT AID FUND

The Student Aid Fund is supported by donations from local businesses and industrial firms, church and civic groups, and several interested individuals. Current donors to the Student Aid Fund are:

Acme Electric Corporation  
Alamac Division of West Point Pepperell  
Alpha Cellulose Corporation  
Belk-Hensdale Company  
Carolina Footwear, Incorporated  
City Homemaker's Club of Lumberton  
Civinette Club of Lumberton  
Civitan Club of Lumberton  
F.C.X. Grain Marketing Service  
First Union National Bank of North Carolina at Lumberton  
First Union National Bank at Red Springs  
Freeman Motor Company  
Guaranty Savings and Loan Association of Fairmont  
Guaranty Savings and Loan Association of St. Pauls  
Hedgpeth Pharmacy, Incorporated  
Home Federal Savings and Loan Association of Lumberton  
Jaycees of Fairmont  
Jaycees of St. Pauls  
J. C. Noble Realty, Incorporated  
J. C. Penney Company, Incorporated  
Joe Sugar of St. Pauls  
Jon-San Chevrolet, Incorporated  
Junior Service League of Lumberton  
Kendall Manufacturing Company  
Lambda Chapter – Delta Kappa Gamma  
Lennon Oil Company, Incorporated  
Lumberton Business and Professional Women's Club  
Lumberton Coca-Cola Bottling Company – A division of Fayetteville Coca-Cola  
    Bottling Company  
Lumberton Implement Company  
Lumberton Junior Woman's Club  
Lumberton Kiwanis Club  
Lumberton Lady Lions Club  
Lumberton Tobacco Board of Trade  
Lumberton Trading Company, Incorporated  
Manning Corporation  
Mr. Cecil L. Thompson  
Mr. Charles David McNeill  
Mr. Charles E. Warwick  
Mr. W. D. Linkhaw  
Mr. and Mrs. Herman S. Minges

Mr. and Mrs. John F. Greene  
Mr. and Mrs. Paul Rosenfeld  
Mrs. E. L. Bowman  
Mrs. Matthew Margolis  
Pate's Supply Company, Incorporated of Pembroke  
Pembroke Senior High School  
Pepsi-Cola Bottling Company of Lumberton  
Protective Agency, Incorporated  
Red Springs Motors, Incorporated  
Robeson Office Supplies, Incorporated  
Robeson Savings and Loan Association  
Rotary Club of Fairmont  
Rotary Club of Lumberton  
Sammy's Auto Sales  
Scarborough Builders Supply Company  
Smith's Refrigeration, Incorporated  
Southeast Production Credit Association  
Southern National Bank of North Carolina at Fairmont  
Southern National Bank of North Carolina at Lumberton  
Trinity Episcopal Church Women  
Universal Packaging Company  
Vel-Cord Southern Corporation  
Waccamaw Bank and Trust Company  
Watson Trust Fund  
Faculty and Staff of Robeson Technical Institute



## **GENERAL STUDENT REGULATIONS**

It is expected that at all times all students will conduct themselves as any responsible adults in a public place. Therefore, students are accountable for observance of all regulations and policies established at Robeson Technical Institute. Students are made aware of the policy governing student conduct, which includes procedures for dealing with alleged violations. Examples of conduct that is not tolerated are destruction of school property, possession of dangerous weapons, possession or use of alcoholic beverages or other drugs. Policies are given in detail in the Student Handbook. Copies of the complete rules and regulations, with procedures for hearing and appeals, are available in the office of Student Services.

## **ACADEMIC INFORMATION**

### **Quarter System**

Robeson Technical Institute is on a quarter schedule. The fall, winter, spring, and summer quarters are each approximately eleven school weeks in length. The Institute is in session five days and four nights a week.

### **Class Schedule**

All classes, full-time, part-time, and non-credit courses, are scheduled between the hours of 8:30 a.m. and 10:30 p.m. Monday through Thursday, and 8:30 a.m. to 5:00 p.m. on Friday. Normally classes for full-time students are scheduled between 8:30 a.m. and 4:00 p.m.

### **Contact Hours**

The contact hours shown in the catalog are minimal. The policy of the institution permits students to enroll in additional subjects and laboratory work beyond those shown in the catalog.

When in any quarter the total weekly contact hours listed are fewer than twenty-five hours in a degree program and fewer than thirty hours in a diploma program, a student may request additional instructional hours.

### **Credit Hours**

Quarter hours of credit are awarded as follows: one quarter hour of credit for each hour per week of class work, one quarter hour of credit for each two hours per week of lab work, and one quarter hour of credit for every three hours of shop work per week.

## **Grading System**

The 4.00 quality point system is used to calculate student grade averages.

Letter Grade	Meaning	Quality Points Per Credit Hour
A	Excellent	4
B	Good	3
C	Average	2
D	Poor, but passing	1
F	Failure	0
WP	Withdraw passing	0
WF	Withdraw failing	0
I	Incomplete, work must be completed within 6 weeks of next quarter; otherwise, F will be recorded	0
AU	Audit; enrollment as a special or noncredit student	0

### **EXAMPLE OF COMPUTING QUALITY POINTS EARNED**

Course	Hours Credit	Grade	Quality Points Per Credit Hour	Grade Points Earned
ENG 1101	3	C	2	6
PME 1101	7	B	3	21
MAT 1101	5	A	4	20
PHY 1101	4	F	0	0
DFT 1101	1	D	1	1
	20			48

The quality point average is completed by dividing grade points earned by the total credit hours. In the case above, it would be  $48 \div 20 = 2.40$  quality point average. All grades A through F are counted in computing the quality point standing. Credit by transfer and credit by examination are not included in computing the quality point standing.

Students may remove academic deficiencies by successfully repeating necessary courses. When a course is repeated, only the grade on the last course attempt is used in computing the student's quality point standing.

## **Academic Deficiency**

A student whose grade point average at the end of each quarter is less than 2.0 will be placed on academic restriction. Notation will be made on the student's grade report at the end of each quarter if his grade point average for the quarter is less than 2.0.

## **Grade Reports**

Grade slips will be mailed to students at the close of each quarter.

## **Attendance**

Regular class attendance is expected of all students. Instructors will keep an accurate class attendance record, and these records will become part of the students' official records. Absences are a serious deterrent to good scholarship, and it is impossible to receive instruction, obtain knowledge, or gain skills when absent from class. Being late for class is also a serious interruption of instruction, and continuous infraction cannot be permitted.

When you are absent from class, you are responsible to each of your instructors to inform them of why you were out. Each instructor will determine the validity of the reason for the absence and will mark you either excused or unexcused for the absence. It is also your responsibility to contact each instructor for class and lab assignments missed.

A student will not be carried in membership after five unexcused absences. The Student Services Department will be notified after the second or third unexcused absence so that the department can assist you in hopefully eliminating additional absences. Upon receiving your fifth unexcused absence, you will be dropped from the class and will not be permitted back to class without first having an interview by someone in Student Services. Also, Student Services must have approval from your instructors to reinstate you back in class.

## **Withdrawal**

A student withdrawing from school during the academic year should complete the withdrawal form in the Director of Admissions' office. Official withdrawal by the student will protect the student's scholastic record, his rights to re-enroll and his right to receive an annual.



# **ASSOCIATE DEGREE IN GENERAL EDUCATION**

## **GENERAL EDUCATION PROGRAM**

The Associate Degree General Education program is essentially a two-year residential program in which a student may complete all work toward an associate degree. Courses included in the General Education curriculum are those which are usually the entire requirements of the freshman and sophomore program in four-year colleges of arts and sciences (exclusive of foreign language requirements required by some colleges).

The Associate Degree in General Education program is designed primarily for young and/or working adults who wish to begin work toward a college degree or to continue a degree program interrupted at an earlier date. In addition, working adults who want to explore a subject for their own enrichment and pleasure may enroll as special students (i.e., not seeking a degree). Students may elect to take only one course each quarter during the day or evening through the General Education Program.

Classes are scheduled twice weekly at night, as well as during the day, so that employed persons may attend conveniently. Courses offered are the same high quality as those offered in four-year colleges. Students are expected to maintain the highest scholastic standards possible. Each General Education program student is offered special assistance in planning his educational program and in relating his program to his personal goals. Advisors are assigned to each student at the time of registration.

Some graduates may elect to pursue a higher academic degree at the completion of the work for an Associate Degree.

Fayetteville State University and Campbell College have agreed to accept all required courses in this program toward fulfillment of their baccalaureate requirements. Pembroke State University will accept the first year's work toward fulfillment of their baccalaureate requirements.

Elective courses outlined in this program will be accepted as electives at the gaining institution. However, individual major requirements at the gaining institutions must be completed.

Graduates of the Associate Degree program in General Education will be admitted to Fayetteville State University without loss of credit as juniors in classification. Students completing one year will be admitted to Pembroke as sophomores in classification.

Students who attempt to transfer before graduation from Robeson Technical Institute will not be covered by the transfer agreements with senior institutions, but will be evaluated on an individual basis.

# ASSOCIATE DEGREE IN GENERAL EDUCATION

		Class Hours	Lab Hours	Credit Hours
<b>FALL QUARTER</b>				
ENG 105	Grammar and Composition	5	0	5
MAT 110	Fundamentals of College Math	5	0	5
PSY 101	Introduction to Psychology	5	0	5
HIS 105	American History	<u>5</u>	<u>0</u>	<u>5</u>
		20	0	20
<b>WINTER QUARTER</b>				
ENG 106	Grammar and Composition	5	0	5
MAT 111	Fundamentals of College Math	5	0	5
ENG 204	Fundamentals of Speech	5	0	5
HIS 106	American History	<u>5</u>	<u>0</u>	<u>5</u>
		20	0	20
<b>SPRING QUARTER</b>				
ART 101	Art Appreciation	5	0	5
PHI 101	Introduction to Philosophy	5	0	5
ENG 108	American Literature	5	0	5
	*Elective			<u>3</u>
				18
<b>FALL QUARTER</b>				
BIO 101	Biology (or PHY 101, Physics)	3	2	4
MUS 101	Music Appreciation	5	0	5
ENG 109	American Literature	5	0	5
	*Elective			<u>3</u>
				17
<b>WINTER QUARTER</b>				
BIO 102	Biology (or PHY 102, Physics)	3	2	4
SOC 201	Principles of Sociology	5	0	5
ECO 102	Economics	5	0	5
POL 201	American Government	<u>5</u>	<u>0</u>	<u>5</u>
		18	2	19
<b>SPRING QUARTER</b>				
	*Electives			<u>16</u>
				Total Credit Hours = 96 - 110

<u>*Electives</u>		Credit Hours
BIO 101-102	Biology	4-4
PHY 101-102	Physics	4-4
BUS 101	Introduction to Business	5
BUS 120-121-122	Accounting	4-4-4
BUS 102-103	Typewriting	3-3
BUS 115-116	Business Law	5-5
MAT 101-102	Technical Mathematics	5-5
HIS 110	The Black Man and Contemporary Society	5
HIS 120	History of the American Indian	5
HEA 201	Personal Health and First Aid	5
SOC 202	Marriage and the Family	5
BUS 106-107-108	Shorthand	4-4-4

## COURSE DESCRIPTIONS

*Credit Hours*

### **ART 101 Art Appreciation**

5

A course to establish an understanding of art, to develop an appreciation for the relationship between art and man, and to study art in a cultural environment.

**BIO 101-102 Biology**

4-4

Modern concepts of biological principles: cell structure and reproduction, metabolism, genetics, and ecology. Three lecture and two laboratory hours each week.

**BUS 101 Introduction to Business**

5

A survey of the business world with particular attention devoted to the structure of the various types of business organizations, methods of financing, internal organization, and management.

**BUS 102 Typewriting**

3

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.

**BUS 103 Typewriting**

3

Designed to improve speed and accuracy with continued emphasis on subjects taught in BUS 102.

Prerequisite: BUS 102.

**BUS 106 Shorthand**

4

A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.

**BUS 107 Shorthand**

4

Continued study of theory with greater emphasis on dictation and elementary transcription.

Prerequisite: BUS 106 or the equivalent.

**BUS 108 Shorthand**

4

Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription.

Prerequisite: BUS 107.

**BUS 115 Business Law**

5

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.

**BUS 116 Business Law**

5

Includes the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights.

Prerequisite: BUS 115.

**BUS 120 Accounting**

4

Principles, techniques, and tools of accounting, for understanding of the mechanics of accounting. Collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises, to include practical application of the principles learned.

<b>BUS 121 Accounting</b>	4
Continuation of accounting principles learned in BUS 120 with detailed emphasis on notes, deferrals, accruals. Includes a study of current and fixed assets with special attention to receivables, inventory, and plant assets.	
Prerequisite: BUS 120.	
<b>BUS 122 Accounting</b>	4
Partnership and corporation accounting including a study of payrolls, federal, and state taxes. Emphasis is placed on the recording, summarizing, and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution of management problems.	
Prerequisite: BUS 121.	
<b>ECO 102 Economics</b>	5
The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution, and consumption both in relation to the individual enterprise and to society at large.	
<b>ENG 105-106 Grammar and Composition</b>	5-5
An integrated study and practice of the language skills—reading, writing, speaking, and listening. A detailed study of the main types of composition including exposition, argumentation, description, and narration. Literary analysis and style are studied and the writing of a research paper is required. Courses must be taken in sequence.	
<b>ENG 108-109 American Literature</b>	5-5
A survey of the major writers of America from colonial days to the present.	
<b>ENG 204 Fundamentals of Speech</b>	5
A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emphasis is placed on the speaker's attitude, improving diction, voice, and the application of particular techniques of theory to correct speaking habits and to produce effective oral presentation. Particular attention given to conducting meetings, conferences, and interviews.	
<b>HEA 201 Personal Health and First Aid</b>	5
Major health problems and how they relate to individuals; principles and applied techniques of first aid are studied.	
<b>HIS 105-106 American History</b>	5-5
A study beginning with the colonization of colonial America and continuing to the present time. The first course (HIS 105) ends at the close of the Civil War. HIS 106 begins with during the reconstruction era and continues to the present.	

**HIS 110 The Black Man and Contemporary Society**

5

This course is an intensive study of the Afro-American from his African and European backgrounds through colonial America to the present. Special attention will be given to the effect of slavery, segregation, and racism on the personality and destiny of the Afro-American. The course will also emphasize Afro-American's contributions, slave revolts, and the contemporary civil, social, and cultural movements.

**HIS 120 History of the American Indian**

5

A survey of the major Indian cultures in North America with emphasis on those located in the eastern half of the United States.

**MAT 101 Technical Mathematics**

5

The real number system is developed as an extension of natural numbers. Number systems of various bases are introduced. Fundamental algebraic operations, the rectangular coordinate system, as well as fundamental trigonometric concepts and operations are introduced. The application of these principles to practical problems is stressed.

**MAT 102 Technical Mathematics**

5

A continuation of MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, determinants, progressions, the binomial expansion, complex numbers, solution of oblique triangles and graphs of the trigonometric functions are studied in depth.

Prerequisite: MAT 101.

**MAT 110-111 Fundamentals of College Math**

5-5

The study of axiomatic use of basic mathematical concepts in the development of the real and complex number systems; algebraic and trigonometric functions with emphasis on fundamentals of applications are studied.

**MUS 101 Music Appreciation**

5

A course designed to instill and to further the development of knowledge, understanding, and the appreciation of good music. Emphasis given to the historical development of music, pertinent criticism, forms of music, listening, and the relationship of music to a general cultural development.

**PHI 101 Introduction to Philosophy**

5

An introductory course designed to give a philosophical perspective to the nature of and the scope of questions arising in the ever-changing yet constant areas of life and the problems and the philosophical answers which guide men's lives.

**PHY 101-102 Physics**

4-4

A survey of the basic principles of physics and of their uses and consequences in our world. The development and interpretation of experiments in physics will be studied and elementary laboratory experiments will be performed.

**POL 201 American Government**

5

American national government with emphasis on basic concepts, structure, powers, procedures, and problems.

**PSY 101 Introduction to Psychology**

5

An introduction to the field of psychology with emphasis upon intelligence, personality, learning, and motivation.

**SOC 201 Principles of Sociology**

5

An introductory course designed to impart to the student a knowledge of himself in social context. Interrelationships in such areas as personality, society, and culture are examined. The student is familiarized with major social processes and institutional functions.

**SOC 202 Marriage and the Family**

5

A course designed to provide understanding of family relationships for those unmarried, those contemplating marriage, those married, and prospective counselors of all of them; a functional approach to the interpersonal relationships of courtship, marriage, and family life.



# **ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS**

## **ACCOUNTING**

### **INTRODUCTION**

Accounting is one of the fastest growing employment fields in America today, and the job outlook for good accountants seems bright for many years to come. These opportunities result from the tremendous business and industrial expansion in all parts of the country. Because of this emphasis, there is a growing need for trained personnel in the area of accounting to help managers keep track of a firm's operation.

### **PURPOSE**

The Accounting curriculum is designed to fill this need for accountants by offering students the detailed accounting theories and practical skills for entry into the accounting profession.

The objectives of the Accounting curriculum are to develop the following competencies:

1. Understanding of the detail fundamentals of accounting and analysis of the financial statements and auditing;
2. Understanding of the principles of organization and management in business operations, business law, and taxes;
3. Understanding and skill in effective communications for business.

### **JOB DESCRIPTION**

The duties and responsibilities of an accountant vary somewhat in different firms. These may include: recording transactions, rendering periodic reports, maintaining cost records, making special reports, completing tax returns, auditing the books, and advising management in areas of financial affairs.

Graduates of the Accounting curriculum will qualify for various jobs in business and industry leading to any of the following accounting positions: accounting clerk, payroll clerk, accounting machine operator, auditor, and cost accountant. This training plus further experience should prepare graduates to become office managers, accounting supervisors, and to fill other responsible positions in a business firm.

## ACCOUNTING

			<i>Hours Per Week</i>	<i>Quarter Hours</i>	
			<i>Class</i>	<i>Lab</i>	<i>Credit</i>
<b>FALL QUARTER</b>					
ENG	101R	Grammar	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Accounting	3	2	4
BUS	111	Business Mathematics	5	0	5
			<u>5</u>	<u>5</u>	<u>22</u>
<b>WINTER QUARTER</b>					
ENG	102	Composition	3	0	3
ECO	102	Economics	5	0	5
BUS	103	Typewriting	2	3	3
BUS	115	Business Law	5	0	5
BUS	121	Accounting	3	2	4
			<u>3</u>	<u>5</u>	<u>20</u>
<b>SPRING QUARTER</b>					
ENG	103	Report Writing	3	0	3
ECO	104	Economics	3	0	3
BUS	116	Business Law	5	0	5
BUS	122	Accounting	3	2	4
BUS	123	Business Finance	5	0	5
			<u>5</u>	<u>2</u>	<u>20</u>
<b>FALL QUARTER</b>					
EDP	104	Introduction to Data Processing	3	2	4
BUS	110	Office Machines	2	3	3
FNG	206	Business Communication	3	0	3
BUS	222	Intermediate Accounting	3	2	4
BUS	235	Business Management	5	0	5
			<u>5</u>	<u>7</u>	<u>19</u>
<b>WINTER QUARTER</b>					
ENG	204	Fundamentals of Speech	5	0	5
BUS	211	Office Machines	2	3	3
BUS	223	Intermediate Accounting	3	2	4
BUS	229	Taxes	3	2	4
BUS	271	Office Management	3	0	3
			<u>3</u>	<u>7</u>	<u>19</u>
<b>SPRING QUARTER</b>					
SSC	201	Social Science	3	0	3
PSY	206	Applied Psychology	3	0	3
BUS	225	Cost Accounting	3	2	4
BUS	269	Auditing	3	2	4
BUS	247	Business Insurance	5	0	5
			<u>5</u>	<u>4</u>	<u>19</u>

## AGRICULTURAL BUSINESS TECHNOLOGY

### INTRODUCTION

Rapid technological changes in farming and related agricultural businesses have given rise to the need for more technically educated people. Various agricultural businesses and industries employ persons to assist in marketing, processing, and distributing of farm products and providing services to the farmer. Many responsible positions in agricultural businesses and industries require technical education not available in high schools or in four-year colleges. The trends are to larger, highly mechanized and specialized farms with

huge capital investments. This means that there will be an increasing demand for capable farm managers to coordinate the purchasing, production, and marketing of these larger agricultural production operations.

Farm managers of the future must possess greater technical competence to remain in the highly competitive production phase of agriculture. They must be able to cope with present production problems and adapt to rapid technological changes.

## PURPOSE

The Agricultural Business Technology curriculum is designed to help students acquire knowledge, understandings, and abilities in the broad field of agricultural business — including agricultural production. It combines knowledge of agriculture with business education to prepare the graduate for many of the varied employment opportunities in agribusiness. General objectives of this curriculum are to develop the following student competencies:

1. Understanding of the principles of organization and management in agricultural businesses and industries;
2. Understanding of the application of the principles of business management to agricultural production, and the abilities essential to the management of an efficient, well-organized farming operation;
3. Understanding of the basic principles of our economic system, marketing, credit, price concepts and governmental policies, and programs relating to agriculture; and
4. Understanding of the agricultural sciences most essential to the production and marketing of agricultural products — including knowledge of the animal, plant, and soil sciences and their relationships with ability to apply these educational experiences to practical problems of agricultural business and industry.

## AGRICULTURAL BUSINESS TECHNOLOGY

		Hours Per Week	Quarter Hours
		Class	Lab
<b>FALL QUARTER</b>			
ENG 101	Grammar	3	0
BUS 101	Introduction to Business	5	0
BUS 111	Business Mathematics	5	0
AGR 125	Animal Science	3	4
BUS 102	Typewriting—(Elective)	2	3
		<b>*16 18</b>	<b>*4 7</b>
			<b>*18 21</b>
<b>WINTER QUARTER</b>			
ENG 102	Composition	3	0
AGR 104	Introduction to Agricultural Economics	3	0
CHM 101	Chemistry	3	4
AGR 228	Livestock Diseases & Parasites	3	4
BUS 120	Accounting	3	2
		<b>15</b>	<b>10</b>
			<b>20</b>
<b>SPRING QUARTER</b>			
ENG 103	Report Writing	3	0
BUS 121	Accounting	3	2
AGR 226	Swine Production	3	2
AGR 201	Agricultural Chemicals	3	2
		<b>12</b>	<b>6</b>
			<b>15</b>

			Hours Per Week	Quarter Hours	
			Class	Lab	Credit
<b>SUMMER QUARTER</b>					
AGR 218	Agricultural Mechanization		4	6	7
AGR 185	Soil Science & Fertilizer		<u>3</u>	<u>6</u>	<u>6</u>
			<u>7</u>	<u>12</u>	<u>13</u>
<b>FALL QUARTER</b>					
ENG 206	Business Communication		3	0	3*
EDP 104	Introduction to Data Processing		3	2	4
AGR 204	Farm Business Management		3	0	3
AGR 170	Plant Science		3	4	5
BUS 110	Office Machines—(Elective)		<u>2</u>	<u>3</u>	<u>3</u>
			*12/14	*6/9	*15/18
<b>WINTER QUARTER</b>					
ENG 204	Fundamentals of Speech		5	0	5
BUS 232	Sales Development		5	0	5
AGR 205	Agricultural Marketing		3	2	4
AGR 278	Weed Identification & Control		<u>3</u>	<u>2</u>	<u>4</u>
			<u>16</u>	<u>4</u>	<u>18</u>
<b>SPRING QUARTER</b>					
PSY 206	Applied Psychology		3	0	3
SSC 201	Social Science		3	0	3
AGR 290	Soil Conservation		3	2	4
HOR 150	General Horticulture		<u>3</u>	<u>2</u>	<u>4</u>
			<u>12</u>	<u>4</u>	<u>14</u>

\*Second total applies when elective is taken.

## **AGRICULTURAL SCIENCE AND MECHANIZATION (WITH TECHNICAL SPECIALTY OPTION)\***

### **PURPOSE**

This curriculum provides a training program for developing the basic knowledge and skills needed for the successful operation and management of a general farming program involving crops and livestock. There is a growing scarcity of young men trained in basic agriculture science and mechanics. Larger farming operations require more mechanization and tremendous outlays of capital; thus, the need for trained farmers becomes increasingly critical. The objective of this curriculum is to provide the managerial and operative training needed for successful farm operation.

### **JOB DESCRIPTION**

The graduate of the General Agriculture and Mechanics curriculum is trained to manage and operate a farm. In addition he should be able to perform most of the repairs to buildings and equipment as well as perform the necessary electrical, construction, and plumbing requirements pertaining to the farm operation.

\*The satisfactory completion of a minimum of 18 hours of general education in addition to the technical specialties will lead to an Associate in Applied Science Degree.

\*This program is designed for military veterans who qualify as farmers under Public Law 90-77, usually referred to as the G. I. Bill; however, any qualified student may enroll to complete the associate degree.

**AGRICULTURAL SCIENCE AND MECHANIZATION  
(WITH TECHNICAL SPECIALTY OPTION)\***

			<i>Hours Per Week</i>	<i>Quarter Hours Credit</i>
			<i>Class</i>	<i>Lab</i>
<b>FIRST QUARTER</b>				
AGR 106	Techniques of Welding I		2	6
AGR 108	Beef Production		<u>2</u>	<u>0</u>
			4	6
<b>SECOND QUARTER</b>				
AGR 106	Techniques of Welding II		1	3
AGR 117	Feeds and Feeding Farm Animals		2	0
AGR 118	Feed Grain Crops		2	0
AGR 105	Pastures and Forage Crops		<u>2</u>	<u>0</u>
			7	3
<b>THIRD QUARTER</b>				
AGR 114	Farm Electrification I		2	6
AGR 109	Soil Science		<u>2</u>	<u>0</u>
			4	6
<b>FOURTH QUARTER</b>				
AGR 114	Farm Electrification II		1	3
AGR 140	Vegetable Production		2	0
AGR 123	Ornamental Horticulture		2	0
AGR 124	Plant Propagation		<u>2</u>	<u>0</u>
			7	3
<b>FIFTH QUARTER</b>				
AGR 122	Farm Machinery Repair and Maintenance I		2	6
AGR 126	Farm Forest Management		<u>2</u>	<u>0</u>
			4	6
<b>SIXTH QUARTER</b>				
AGR 122	Farm Machinery Repair and Maintenance II		1	3
AGR 142	Agriculture Finance		2	0
AGR 144	Opportunities in Agriculture Business		2	0
AGR 121	Weed Identification and Control		<u>2</u>	<u>0</u>
			7	3
<b>SEVENTH QUARTER</b>				
AGR 128	Farm and Home Construction I		2	6
AGR 130	Pesticides		<u>2</u>	<u>0</u>
			4	6
<b>EIGHTH QUARTER</b>				
AGR 128	Farm and Home Construction II		1	3
AGR 131	Soybean Production		2	0
AGR 134	Tobacco Production		2	0
AGR 139	Fertilizers and Lime		<u>2</u>	<u>0</u>
			7	3
<b>NINTH QUARTER</b>				
AGR 141	Surveying I		2	6
AGR 132	Livestock Diseases and Parasites		<u>2</u>	<u>0</u>
			4	6
<b>TENTH QUARTER</b>				
AGR 141	Surveying II		1	3
AGR 135	Agricultural Law		2	0
AGR 136	Agricultural Math		2	0
AGR 143	New Sources of Farm Income		<u>2</u>	<u>0</u>
			7	3
<b>ELEVENTH QUARTER</b>				
AGR 101	Farm Tractors I		2	6
AGR 102	Farm Business Management		<u>2</u>	<u>0</u>
			4	6

**TWELFTH QUARTER**

AGR 101	Farm Tractors II	1	3	2
AGR 138	Farm Records and Taxes	2	0	2
AGR 107	Farm Accounting and Records	2	0	2
AGR 103	Swine Feeding and Management	2	0	2
		7	3	8

\*The following additional subjects are provided for the student who pursues an Associate of Applied Science Degree and meets other graduation criteria as stated in the R.T.I. Student Handbook.

ENG 101	Grammar	3	0	3
ENG 102	Composition	3	0	3
ENG 103	Report Writing	3	0	3
ENG 204	Fundamentals of Speech	5	0	5
AGR 133	Farm Water and Plumbing Systems	3	9	6
AGR 137	Home Appliance Repair	3	9	6
	Social Science — Elective	6	0	6
		26	18	32

## BUSINESS ADMINISTRATION

### INTRODUCTION

In North Carolina the opportunities in business are increasing. With the increasing population and industrial development in this state, business, has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level.

### PURPOSE

The Business Administration curriculum is designed to prepare the graduate for employment and immediate effectiveness in many types of administrative and management trainee positions throughout the industrial community. The objectives of the Business Administration curriculum are to develop the following competencies:

1. Understanding of the principles of organization and management in business operations;
2. Understanding our economy through study and analysis of the role of production and marketing;
3. Knowledge in specific elements of accounting, finance, and business law;
4. Understanding and skill in effective communication for business;
5. Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy.

### JOB DESCRIPTION

The graduates of the Business Administration curriculum may enter a variety of career opportunities from beginning sales or office manager trainee to specialized duties in production, quality control, or inventory control. The duties and responsibilities of these graduates vary in different firms. These encompassments might include: making up and filing reports, tabulating and posting data, credit and billing, checking calculations, adjusting complaints,

operating various office machines, and assisting managers in supervising. Positions are available in businesses such as advertising, banking, credit, finance, retailing, wholesaling, hotel, tourist and travel industry, insurance, transportation, and communications.

## BUSINESS ADMINISTRATION

			<i>Hours Per Week</i>	<i>Quarter Hours Credit</i>
			<i>Class</i>	<i>Lab</i>
<b>FALL QUARTER</b>				
ENG	101R	Grammar	5	0
BUS	101	Introduction to Business	5	0
BUS	102	Typewriting	2	3
BUS	120	Accounting	3	2
BUS	111	Business Mathematics	<u>5</u>	<u>0</u>
			20	5
			22	
<b>WINTER QUARTER</b>				
ENG	102	Composition	3	0
ECO	102	Economics	5	0
BUS	103	Typewriting	2	3
BUS	115	Business Law	5	0
BUS	121	Accounting	<u>3</u>	<u>2</u>
			18	5
			20	
<b>SPRING QUARTER</b>				
ENG	103	Report Writing	3	0
ECO	104	Economics	3	0
BUS	116	Business Law	5	0
BUS	122	Accounting	3	2
BUS	123	Business Finance	<u>5</u>	<u>0</u>
			19	2
			20	
<b>FALL QUARTER</b>				
EDP	104	Introduction to Data Processing	3	2
BUS	110	Office Machines	2	3
ENG	206	Business Communication	3	0
BUS	219	Credit Procedures & Problems	3	0
BUS	235	Business Management	<u>5</u>	<u>0</u>
			16	5
			18	
<b>WINTER QUARTER</b>				
ENG	204	Fundamentals of Speech	5	0
BUS	211	Office Machines	2	3
BUS	229	Taxes	3	2
BUS	271	Office Management	3	0
BUS	232	Sales Development	<u>5</u>	<u>0</u>
			18	5
			20	
<b>SPRING QUARTER</b>				
SSC	201	Social Science	3	0
PSY	206	Applied Psychology	3	0
BUS	233	Personnel Management & Supervision	5	0
BUS	241	Sales Promotion & Advertising	5	0
BUS	247	Business Insurance	<u>5</u>	<u>0</u>
			21	0
			21	

## **GENERAL ENGINEERING TECHNOLOGY**

Technician training is highly specialized training for effective entrance into various specialized areas of occupations. However, there is a core of knowledge and skills which all persons need in order to work at the technician level in any engineering field.

This program is designed to provide the basic subjects in mathematics, science, drafting, and general education which will prepare the successful student to enter one of the following: Civil, Air Conditioning, Mechanical, or Environmental Engineering Technology, or Mechanical Drafting and Design.

The first year will be taught at Robeson Technical Institute, with transfer options to Fayetteville Technical Institute to complete the requirements for the Associate in Applied Science Degree in one of the four engineering technologies mentioned above.

### **GENERAL ENGINEERING TECHNOLOGY\***

		<i>Hours Per Week</i>		<i>Quarter Hours Credit</i>
		<i>Class</i>	<i>Lab</i>	
<b>FALL QUARTER</b>				
ENG 101	Grammar	3	0	3
MAT 101	Technical Mathematics	5	0	5
PHY 101	Physics: Properties of Matter	3	2	4
DFT 108	Technical Drafting	0	6	2
SSC 201	Social Science	3	0	3
		<u>14</u>	<u>8</u>	<u>17</u>
<b>WINTER QUARTER</b>				
ENG 102	Composition	3	0	3
ENG 103	Report Writing	3	0	3
MAT 102	Technical Mathematics	5	0	5
PHY 102	Physics: Work, Energy, & Power	3	2	4
DFT 109	Technical Drafting	0	6	2
		<u>14</u>	<u>8</u>	<u>17</u>
<b>SPRING QUARTER</b>				
ENG 204	Fundamentals of Speech	5	0	5
MAT 103	Technical Mathematics	5	0	5
PHY 103	Physics: Work, Energy, & Power	3	2	4
PSY 206	Applied Psychology	3	0	3
EDP 104	Introduction to Data Processing	3	2	4
		<u>19</u>	<u>4</u>	<u>21</u>

\*Transfer Option: Mechanical Drafting & Design Technology  
Environmental Engineering Technology  
Air Conditioning Technology  
Mechanical Engineering Technology  
Civil Engineering Technology

## **GENERAL OFFICE TECHNOLOGY**

### **INTRODUCTION**

More people are now employed in clerical occupations than in any other single job category. Automation and increased production will mean that these people will need more technical skills and a greater adaptability for diversified types of jobs.

## PURPOSE

The General Office Technology curriculum is designed to develop the necessary variety of skills for employment in the business world. Specialized training in skill areas is supplemented by related courses in Mathematics, Accounting, Business Law, and Applied Psychology.

## JOB DESCRIPTION

The graduate of the General Office Technology curriculum may be employed as an administrative assistant, accounting clerk, assistant office manager, book-keeper, file clerk, machine transcriptionist, or a variety of other clerical-related jobs. Positions are available in almost every type of business, large or small.

## GENERAL OFFICE TECHNOLOGY

			Hours Per Week	Quarter Hours Credit
		Class	Lab	
<b>FALL QUARTER</b>				
ENG	101R	Grammar	5	0 5
BUS	101	Introduction to Business	5	0 5
BUS	102	Typewriting	2	3 3
BUS	111	Business Mathematics	5	0 5
			17	3 18
<b>WINTER QUARTER</b>				
ENG	102	Composition	3	0 3
BUS	103	Typewriting	2	3 3
BUS	115	Business Law	5	0 5
BUS	120	Accounting	3	2 4
			13	5 15
<b>SPRING QUARTER</b>				
ENG	104R	Executive Spelling	3	0 3
BUS	104	Typewriting	2	3 3
BUS	109R	Machine Transcription	2	3 3
BUS	121	Accounting	3	2 4
			10	8 13
<b>FALL QUARTER</b>				
ENG	201R	Advanced Grammar	5	0 5
ENG	206	Business Communication	3	0 3
EDP	104	Introduction to Data Processing	3	2 4
BUS	205	Advanced Typewriting	2	3 3
BUS	110	Office Machines	2	3 3
			15	8 18
<b>WINTER QUARTER</b>				
PSY	112	Personal Development	3	0 3
ENG	204	Fundamentals of Speech	5	0 5
BUS	211	Office Machines	2	3 3
BUS	229	Taxes	3	2 4
			13	5 15
<b>SPRING QUARTER</b>				
SSC	201	Social Science	3	0 3
PSY	206	Applied Psychology	3	0 3
BUS	112	Filing	3	2 4
BUS	214	Secretarial Procedures	3	2 4
BUS	183	Terminology, Vocabulary, & Punctuation	5	0 5
			17	4 19

# INDUSTRIAL MANAGEMENT

Industry's needs in positions of supervision and mid-management have grown extensively with the development of new methods of manufacturing and the increase in the national economy. This need has added emphasis to the necessity for well-trained individuals that can understand new methods and keep abreast of trends in the economy. The supervisor and persons in mid-management must be concerned daily with human behavior and the psychological factors which affect personnel working under their direction. They must also be conscious of the responsibilities of their position toward the total economic well-being of the industry.

The program is prepared to develop the individual's abilities in the art of communicating with his fellow worker by providing him with training in business and industrial management, psychology, production methods, and the general and social education that broadens one's perspective. This training should provide one with the opportunity to enter into an industrial occupation and, with experience, assume the responsibilities that go with supervisory and mid-management positions in industry.

## INDUSTRIAL MANAGEMENT

			Hours Per Week	Quarter Hours	
			Class	Lab	Credit
<b>FALL QUARTER</b>					
ENG	101R	Grammar	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
DFT	108	Technical Drafting	0	6	2
BUS	111	Business Math	<u>5</u>	0	<u>5</u>
			17	9	20
<b>WINTER QUARTER</b>					
ENG	102	Composition	3	0	3
ECO	102	Economics	5	0	5
BUS	103	Typewriting	2	3	3
BUS	115	Business Law	5	0	5
DFT	109	Technical Drafting	0	6	2
			15	9	18
<b>SPRING QUARTER</b>					
ENG	103	Report Writing	3	0	3
BUS	116	Business Law	5	0	5
BUS	233	Personnel Management & Supervision	5	0	5
BUS	123	Business Finance	5	0	5
			18	0	18
<b>FALL QUARTER</b>					
ENG	204	Fundamentals of Speech	5	0	5
EDP	104	Introduction to Data Processing	3	2	4
ISC	120	Principles of Industrial Management	3	2	4
ISC	210	Job Analysis and Evaluation	3	2	4
ENG	206	Business Communication	3	0	3
			17	6	20
<b>WINTER QUARTER</b>					
ISC	231	Manufacturing Cycles	5	0	5
ISC	102	Industrial Safety	3	0	3
ECO	201	Labor Economics and Labor Relations	3	2	4
ISC	211	Work Measurement	3	2	4
ISC	207	Foremanship Supervision	3	0	3
			17	4	19

			<i>Hours Per Week</i>	<i>Quarter Hours</i>	
			<i>Class</i>	<i>Lab</i>	<i>Credit</i>
<b>SPRING QUARTER</b>					
SSC	201	Social Science	3	0	3
ISC	202	Quality Control	3	2	4
ISC	220	Management Problems	3	0	3
MEC	213	Production Planning	3	0	3
PSY	206	Applied Psychology	3	0	3
ISC	235	Industrial Management Seminar	1	2	2
			16	4	18

## MECHANICAL DRAFTING AND DESIGN TECHNOLOGY

### PURPOSE

There are identifiable skills which are common to all technicians of the general classification of Mechanical Drafting and Design Technology. This curriculum has been designed for training persons in the accepted performance of basic skills and to enable the individual student to become proficient in a short time after he becomes employed in industry.

The technician associates with many levels of thought and expression—administrative personnel, scientists, engineers, skilled workmen—and must be able to communicate effectively with all levels. Courses containing essential information from related subjects, such as mathematics, physics, and mechanics, have been included in order to provide the student a better academic base for his training. Emphasis is placed upon ability to think and plan, as well as drafting procedures and techniques.

### JOB DESCRIPTION

Mechanical drafting and design technicians are concerned with the preparation of drawings for design proposals, for experimental models and items for production use.

These technicians perform many aspects of drafting in a specialized field, such as the development of the drawing for sub-assemblies or major components. Investigating design factors, availability of material and equipment, production methods, and facilities are frequent assignments. They assist in the design of units and controls from specifications by utilizing drawings of existing units and reports on functional performance. They may draw components in industrial fields based on engineers' original design concepts or specific ideas. They may be assigned as coordinators for the execution of related work of other design, production, tooling, material and planning. Technicians with experience in this classification may often supervise the preparation of working drawings.

These technicians are employed in many types of manufacturing, fabrication, research development, and service industries. Substantial numbers also are employed in communications, transportation, public utilities, consulting engineering firms, and federal, state, and local governments.

## MECHANICAL DRAFTING AND DESIGN TECHNOLOGY

			<i>Hours Per Week</i>	<i>Quarter Hours Credit</i>
			<i>Class</i>	<i>Lab</i>
<b>FALL QUARTER</b>				
ENG 101	Grammar		3	0
MAT 101	Technical Mathematics		5	0
DFT 101	Technical Drafting		3	12
MEC 101	Machine Processes		1	6
			<u>12</u>	<u>18</u>
<b>WINTER QUARTER</b>				
ENG 102	Composition		3	0
MAT 102	Technical Mathematics		5	0
PHY 101	Physics: Properties of Matter		3	2
DFT 102	Technical Drafting		1	9
MEC 102	Machine Processes		1	6
			<u>13</u>	<u>17</u>
<b>SPRING QUARTER</b>				
ENG 103	Report Writing		3	0
MAT 103	Technical Mathematics		5	0
PHY 102	Physics: Work, Power, Energy		3	2
DFT 103	Technical Drafting		3	9
MEC 103	Machine Processes		2	3
			<u>16</u>	<u>14</u>
<b>FALL QUARTER</b>				
ENG 204	Fundamentals of Speech		5	0
PHY 106	Physics: Applied Mechanics		3	2
DFT 201	Technical Drafting		1	9
MEC 205	Strength of Materials		2	3
			<u>11</u>	<u>14</u>
<b>WINTER QUARTER</b>				
DFT 205	Design Drafting I		3	9
DFT 211	Mechanisms		2	3
MEC 210	Physical Metallurgy		3	3
MEC 235	Hydraulics and Pneumatics		3	3
			<u>11</u>	<u>18</u>
<b>SPRING QUARTER</b>				
SSC 201	Social Science		3	0
PSY 206	Applied Psychology		3	0
DFT 230	Structural Drafting		3	12
MEC 211	Physical Metallurgy		3	3
			<u>12</u>	<u>15</u>
				<u>17</u>

## POLICE SCIENCE TECHNOLOGY

### INTRODUCTION

It is recognized today that the police profession can no longer rely on its past methodology in recruitment, training, and performance in the field. The complexities of modern society require that law enforcement officers be knowledgeable in a number of areas. A law enforcement officer must have an understanding of human psychology in order to arbitrate domestic quarrels and properly handle deviant behavior. His deep involvement with the entire administration of justice necessitates an understanding of law. He must have an understanding of the behavior, attitudes,

and motivations of various ethnic groups. The law enforcement officer must understand emergency procedures and be prepared to administer aid to injured and ill individuals.

A law enforcement officer must be expert in his daily work area; he must develop a competency in investigative techniques, patrol and traffic functions, court procedures, police management, forensic science, and the mechanics of arrest, search, and seizure.

Above all, the law enforcement officer must understand the meaning and value of ethical concepts relating to honesty, integrity, and tolerance.

## DESCRIPTION OF CURRICULUM

This curriculum will assist the student in acquiring the necessary understandings required of law enforcement officers by modern society. The approach is both theoretical and practical, with course work which covers all areas of the practical, theoretical, and technical application of law enforcement techniques. The courses in this curriculum are designed for law enforcement officers, prospective law enforcement officers, and citizens interested in the crime problem. Classes are scheduled so that they can be taken by law enforcement officers during their off-duty hours. The degree of Associate in Applied Science in Police Science Technology will be awarded upon successful completion of this curriculum.

## POLICE SCIENCE TECHNOLOGY

		Hours Per Week	Quarter Hours	Credit
		Class	Lab	
<b>FALL QUARTER</b>				
ENG	101R	Grammar	5	0
BUS	111	Business Mathematics	5	0
PSC	101	Introduction to Police Science	5	0
PSY	206	Applied Psychology	3	0
PSC	102	Motor Vehicle Laws	3	0
			21	0
				21
<b>WINTER QUARTER</b>				
ENG	102	Composition	3	0
PSC	220	Police Organization and Administration	3	0
PSC	105	Introduction to Criminology	5	0
POL	102	United States Government	3	0
SOC	201	Introduction to Sociology	5	0
			19	0
				19
<b>SPRING QUARTER</b>				
ENG	204	Fundamentals of Speech	5	0
POL	202	State & Local Government	5	0
HEA	102	First Aid & Safety	3	0
PSC	106	Identification Techniques	3	2
PSC	110	Police Role in Crime & Delinquency	3	0
			19	2
				20
<b>FALL QUARTER</b>				
ENG	103	Report Writing	3	0
CHM	105R	General Chemistry	3	2
PSC	115	Criminal Law I	3	0
PSC	201	Traffic Planning & Management	5	0
PSC	221	Police Supervision	3	0
			17	2
				18

**WINTER QUARTER**

PSC 116	Criminal Law II	3	0	3
PSC 204	Police Photography	3	2	4
PSC 211	Introduction to Criminalistics	3	2	4
PSC 225	Criminal Procedure	2	0	2
PSC 217	Laws of Arrest, Search, and Seizure	5	0	5
		16	4	18

**SPRING QUARTER**

PSC 240	Firearms & Defensive Tactics	3	2	4
PSC 210	Criminal Investigation	3	4	5
PSC 205	Criminal Evidence	3	0	3
PSY 103	Adolescent Psychology	3	0	3
PSC 230	Human Relations	3	0	3
		15	6	18

**ELECTIVES**

PSC 212	Forensic Science	3	2	4
PSC 208	Applied Police Psychology	3	0	3
PSC 202	Police Community Relations	2	0	2
BUS 102	Beginning Typewriting	2	3	3
PSC 219	Administration of Justice	5	0	5
PSC 250	Individual Study	3	0	3
PSC 241	Firearms Practice I	0	3	1

## **SECRETARIAL — EXECUTIVE**

### **INTRODUCTION**

The tremendous business and industrial expansion throughout North Carolina has placed even greater demands on operating executives. Because of these demands, increased emphasis has been placed on the requirements for more and better qualified stenographers and executive secretaries to relieve the manager of routine administrative matters.

### **PURPOSE**

The purpose of this curriculum is to outline a program of instruction that will provide training in secretarial procedures and practices required by business office managers and insure that graduates of this course will be immediately effective upon accepting employment in a business office.

The objectives of the Executive Secretarial curriculum are to develop the following competencies:

1. Skill in typing, dictation, transcription, and business terminology;
2. Special training in accounting, business mathematics, business law, and office machines;
3. Understanding and skill in the effective use of communications, human relations and personality, and social science in business functions.

## JOB DESCRIPTION

The graduate of the Executive Secretarial curriculum will qualify for a variety of positions requiring skill in dictation, accurate transcription of business letters and reports, general knowledge of the business community, and may be employed as a stenographer or executive secretary. Stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, or reports. The executive secretary, in addition to taking dictation and transcribing, is given more responsibility in connection with meeting office callers, screening telephone calls, and being an assistant to an executive. The graduate may enter a secretarial position in a variety of offices in businesses such as insurance companies, banks, marketing institutions, and financial firms.

### SECRETARIAL — EXECUTIVE

			Hours Per Week	Quarter Hours Credit
			Class	Lab
<b>FALL QUARTER</b>				
ENG	101R	Grammar	5	0
BUS	101	Introduction to Business	5	0
BUS	102	Typewriting	2	3
BUS	106	Shorthand	3	2
BUS	111'	Business Mathematics	5	0
			20	5
				22
<b>WINTER QUARTER</b>				
ENG	102	Composition	3	0
BUS	103	Typewriting	2	3
BUS	107	Shorthand	3	2
BUS	115	Business Law	5	0
BUS	120	Accounting	3	2
			16	7
				19
<b>SPRING QUARTER</b>				
ENG	104R	Executive Spelling	3	0
BUS	104	Typewriting	2	3
BUS	108	Shorthand	3	2
BUS	121	Accounting	3	2
			11	7
				14
<b>FALL QUARTER</b>				
EDP	104	Introduction to Data Processing	3	2
BUS	110	Office Machines	2	3
BUS	205	Advanced Typewriting	2	3
BUS	206	Dictation and Transcription	3	2
ENG	206	Business Communication	3	0
			13	10
				17
<b>WINTER QUARTER</b>				
PSY	112	Personal Development	3	0
ENG	204	Fundamentals of Speech	5	0
BUS	207	Dictation and Transcription	3	2
BUS	211	Office Machines	2	3
BUS	229	Taxes	3	2
			16	7
				19

			<i>Hours Per Week</i>	<i>Quarter Hours</i>	
			<i>Class</i>	<i>Lab</i>	<i>Credit</i>
<b>SPRING QUARTER</b>					
BUS 112	Filing		3	2	4
BUS 183	Terminology, Vocabulary and Punctuation		5	0	5
SSC 201	Social Science		3	0	3
BUS 208	Dictation and Transcription		3	2	4
BUS 214	Secretarial Procedures		<u>3</u>	<u>2</u>	<u>4</u>
			<u>17</u>	<u>6</u>	<u>20</u>

## SECRETARIAL — LEGAL

### INTRODUCTION

The demand for better qualified legal secretaries in our ever-expanding legal profession throughout the state is becoming more acute. Qualified legal secretaries will relieve the attorney of routine administrative matters.

### PURPOSE

The purpose of the Legal Secretarial curriculum is to outline a training program that will provide specialized training in the accepted procedures required by the legal profession, and to enable persons to become proficient soon after accepting employment in the legal office.

The objectives of the Legal Secretarial curriculum are to develop the following competencies:

1. Skill in typing, dictation, transcription, and legal terminology;
2. Special training in accounting, business mathematics, business law, and office machines;
3. Understanding and skill in the effective use of communications, human relations and personality, and social science in legal functions.

### JOB DESCRIPTION

The graduate of the Legal Secretarial curriculum should have a knowledge of legal terminology, skill in dictation and accurate transcription of legal records, reports, letters, and documents. The duties of a legal secretary may consist of: taking dictation and transcribing letters, memoranda and reports, meeting office callers and screening telephone calls, filing, and scheduling appointments.

## SECRETARIAL — LEGAL

			<i>Hours Per Week</i>	<i>Quarter Hours</i>	
			<i>Class</i>	<i>Lab</i>	<i>Credit</i>
<b>FALL QUARTER</b>					
ENG 101R	Grammar		5	0	5
BUS 111	Business Mathematics		5	0	5
BUS 101	Introduction to Business		5	0	5
BUS 102	Typewriting		2	3	3
BUS 106	Shorthand		<u>3</u>	<u>2</u>	<u>4</u>
			<u>20</u>	<u>5</u>	<u>22</u>
<b>WINTER QUARTER</b>					
ENG 102	Composition		3	0	3
BUS 103	Typewriting		2	3	3
BUS 107	Shorthand		3	2	4
BUS 115	Business Law		5	0	5
BUS 120	Accounting		<u>3</u>	<u>2</u>	<u>4</u>
			<u>16</u>	<u>7</u>	<u>19</u>

			Hours Per Week	Quarter Hours Credit
			Class	Lab
<b>SPRING QUARTER</b>				
ENG	104R	Executive Spelling	3	0 3
BUS	104	Typewriting	2	3 3
BUS	108	Shorthand	3	2 4
BUS	116	Business Law	5	0 5
BUS	121	Accounting	3	2 4
			16	7 19
<b>FALL QUARTER</b>				
ENG	206	Business Communication	3	0 3
EDP	104	Introduction to Data Processing	3	2 4
BUS	110	Office Machines	2	3 3
BUS	205	Advanced Typewriting	2	3 3
BUS	206L	Dictation & Transcription (Legal)	3	2 4
			13	10 17
<b>WINTER QUARTER</b>				
ENG	204	Fundamentals of Speech	5	0 5
PSY	112	Personal Development	3	0 3
BUS	207L	Dictation & Transcription (Legal)	3	2 4
BUS	211	Office Machines	2	3 3
BUS	229	Taxes	3	2 4
			16	7 19
<b>SPRING QUARTER</b>				
SSC	201	Social Science	3	0 3
BUS	112	Filing	3	2 4
BUS	183L	Term., Vocabulary, & Punctuation (Legal)	5	0 5
BUS	208L	Dictation & Transcription (Legal)	3	2 4
BUS	214	Secretarial Procedures	3	2 4
			17	6 20

## SECRETARIAL — MEDICAL

### INTRODUCTION

The recent expansion of existing medical facilities in Robeson County and the increasing number of physicians practicing in this area have created a demand for qualified medical stenographers and secretaries which far exceeds the supply of trained personnel. Qualified medical secretaries will relieve the physician of routine administrative matters.

### PURPOSE

The purpose of this curriculum is to outline a program of instruction that will provide training in secretarial procedures and practices required by the physicians and hospital administrators and insure that graduates of this course will be immediately effective upon accepting employment in a medical office.

The objectives of the Medical Secretarial curriculum are to develop the following competencies:

1. Skill in typing, dictation, transcription, and medical terminology;
2. Special training in accounting, business mathematics, business law, and office machines;
3. Understanding and skill in the effective use of communications, human relations and personality, and social science in medical functions.

## JOB DESCRIPTION

The graduate of the Medical Secretarial program will qualify for a variety of positions requiring skill in dictation, accurate transcription of business and medical letters, medical reports, general knowledge of the medical office operation, and may be employed as a medical stenographer or secretary. Medical stenographers are primarily responsible for taking dictation and transcribing letters, memoranda, or reports. The medical secretary, in addition to taking dictation and transcribing, is given more responsibility in connection with meeting office callers, making appointments, screening telephone calls, and being an assistant to the physician. The graduate may enter a secretarial position in a variety of offices in hospitals, medical supply houses, physicians' offices and clinics.

## SECRETARIAL — MEDICAL

			Hours Per Week	Quarter Hours
			Class	Lab
<b>FALL QUARTER</b>				
ENG	101R	Grammar	5	0
BUS	111	Business Mathematics	5	0
BUS	102	Typewriting	2	3
BUS	101	Introduction to Business	5	0
BUS	106	Shorthand	3	2
			20	5
				22
<b>WINTER QUARTER</b>				
ENG	102	Composition	3	0
BUS	103	Typewriting	2	3
BUS	107	Shorthand	3	2
BUS	120	Accounting	3	2
BUS	115	Business Law	5	0
			16	7
				19
<b>SPRING QUARTER</b>				
ENG	104R	Executive Spelling	3	0
BUS	104	Typewriting	2	3
BUS	108	Shorthand	3	2
BUS	121	Accounting	3	2
BUS	116	Business Law	5	0
			16	7
				19
<b>FALL QUARTER</b>				
BIO	110	Anatomy	3	0
BUS	206M	Dictation & Transcription (Medical)	3	2
BUS	205	Advanced Typewriting	2	3
BUS	110	Office Machines	2	3
EDP	104	Introduction to Data Processing	3	2
			13	10
				17
<b>WINTER QUARTER</b>				
BUS	207M	Dictation & Transcription (Medical)	3	2
BUS	229	Taxes	3	2
BUS	211	Office Machines	2	3
ENG	204	Fundamentals of Speech	5	0
PSY	112	Personal Development	3	0
			16	7
				19

			Hours	Per Week	Quarter
			Class	Lab	Hours Credit
<b>SPRING QUARTER</b>					
BUS	208M	Dictation & Transcription (Medical)	3	2	4
BUS	214	Secretarial Procedures	3	2	4
BUS	183M	Term., Vocabulary, & Punctuation (Medical)	5	0	5
BUS	112	Filing	3	2	4
SSC	201	Social Science	. <hr/>	3 <hr/>	3 <hr/>
				17 <hr/>	6 <hr/>
					20

## COURSE DESCRIPTIONS

## **ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS**

The following section provides a brief description for each course listed in the previous section. Courses are listed alphabetically by prefix and arranged in ascending order by number (e.g., BUS 101, BUS 110, BUS 205, ENG 101, etc.).

The numbers given on the right side of the page (3 2 4) indicate the following: First number gives the hours per week of lecture, second number gives the hours per week of laboratory or shop, and the third number indicates the quarter hour credit for that one course.

AGR 101 Farm Tractors 3 9 6

A study of farm tractors including gas and diesel engines. Units to be studied include engines, ignition, electrical, braking, cooling and transmission systems.

AGR 102 Farm Business Management 2 0 2

A review of the functions of the manager of a business firm and the problems of farm operators. Development of the concepts of costs and budgets as an aid in choosing what to produce. An analysis of the factors of production to find the least cost production procedure. Data will be analyzed to select the level of production that yields the highest net revenue. Relationships between size, efficiency, and gross farm income and net farm income will be stressed.

**AGR 103 Swine Feeding and Management** 2 0 2

A study of the scientific methods of selecting, breeding, feeding, and management of swine. Special attention will be given to housing and marketing.

**AGR 104** Introduction to Agricultural Economics      3      0      3

An introduction to economics, the functions of the economic system, and agriculture's role in the economy. A review of the functions of the manager, and an introduction to the principles he uses in making decisions to adjust to changing conditions. Analysis of the main sources of change which affect agricultural firms.

**AGR 105 Pastures and Forage Crops** 2 0 2

A study of the major grasses and legumes of economic importance in North Carolina. Attention will be given to management, soil types, fertilization, harvesting, and nutrient value.

<b>AGR 106 Techniques of Welding</b>	3	9	6
This course will cover both arc and gas welding. The safe and correct methods of assembling and operating welding equipment will be stressed. Welded joints and flame cutting are discussed and practiced in various positions that are applicable to mechanical repair work and steel fabrication. Care, maintenance, and selection of welding equipment and supplies are applied in this course.			
<b>AGR 107 Farm Accounting and Records</b>	2	0	2
An introductory course to accounting methods related to farm needs which acquaints the student with terminology, basic principles and techniques used in recording transactions. Practical application of the principles learned are made by working with actual farm situations.			
<b>AGR 108 Beef Production</b>	2	0	2
A study of the principles of selecting, breeding, feeding, care and management of beef cattle.			
<b>AGR 109 Soil Science</b>	2	0	2
This course deals with the development, classification, evaluation and management of soils; care, cultivation, and conservation of soil fertilization.			
<b>AGR 114 Farm Electrification</b>	3	9	6
A study of basic principles of wiring farm buildings and the application of electricity to agriculture production.			
<b>AGR 117 Feeds and Feeding Farm Animals</b>	2	0	2
A study of the composition of feeds, feed additives, and the nutritional requirements of livestock. The course includes a study of the principles used in the formulation of practical and economical livestock rations.			
<b>AGR 118 Feed Grain Crops</b>	2	0	2
This course stresses the value of scientific methods in the production of corn, oats, wheat, barley and sorghum. Varieties, soils, fertilization, cultivation, harvesting and utilization are included.			
<b>AGR 121 Weed Identification and Control</b>	2	0	2
A study dealing with the identification and control of annual and perennial weeds and grasses of economic importance in North Carolina.			
<b>AGR 122 Farm Machinery Repair and Maintenance</b>	3	9	6
This course emphasizes the proper care of farm machinery and the economic value of proper servicing and management. All kinds of farm machinery will be utilized and the student will develop skills through actual demonstrations and shop practice.			

**AGR 123 Ornamental Horticulture** 2 0 2  
A study of the principles of care and selection of plants, shrubs, trees and grasses for the home landscape. Field trips and demonstrations will be utilized in the development of skills and practices needed in landscape planning.

**AGR 124 Plant Propagation** 2 0 2  
The various means of plant reproduction are scientifically studied. Special attention is given to the propagation of shrubs for the home landscape plan.

**AGR 125 Animal Science** 3 4 5  
An introductory animal science course covering the fundamental principles of livestock production. A study of the animal body and the basic principles of reproduction, genetics, growth, fattening, and digestion along with the selection, feeding improvement, processing, and marketing of livestock.

**AGR 126 Farm Forest Management** 2 0 2  
A course dealing with the fundamentals of forestry and farm forestry problems, including planting, thinning, harvesting and marketing.

**AGR 128 Farm and Home Construction** 3 9 6  
This course deals with the fundamentals of farm carpentry, fences, concrete and masonry. Part of the course gives students an opportunity to learn and practice home construction projects such as kitchen cabinets.

**AGR 130 Pesticides** 2 0 2  
A study of the beneficial and harmful insects affecting farm production in North Carolina and the methods of control.

**AGR 131 Soybean Production** 2 0 2  
Crop characteristics, varieties, environmental factors, rotations, control of pests and other production practices are covered.

**AGR 132 Livestock Diseases and Parasites** 2 0 2  
A course dealing with the common diseases and parasites of livestock; sanitation practices and procedures with emphasis on the cause, damage, symptoms, prevention and treatment of parasites and diseases, and management factors relating to disease and parasite prevention and control.

**AGR 133 Farm Water and Plumbing Systems** 3 9 6  
This course is a study of the farm water needs and waste disposal. Attention is given to planning and installing the system and its proper care and maintenance.

**AGR 134 Tobacco Production** 2 0 2  
This course discusses the production practices that are relevant to flue-cured tobacco in North Carolina. Emphasized will be plant bed practices and field production—machinery, cultural practices, fertilization, harvesting and marketing.

**AGR 135 Agricultural Law**                                    2      0      2

A general course designed to acquaint the student with certain fundamentals and principles of law, including contracts, agency and negotiable instruments. Includes the general study of law pertaining to partnership, corporation, sales, suretyship, bailments, and real property.

**AGR 136 Agricultural Math**                                    2      0      2

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.

**AGR 137 Farm and Home Appliance Repair**                            3      9      6

This course teaches the student how to repair all home appliances with emphasis on commonly used electrical appliances and machines in the home or on the farm.

**AGR 138 Farm Records and Taxes**                            2      0      2

This is a study of the records necessary to properly complete a tax form and the procedures and skills needed for income tax computations.

**AGR 139 Fertilizers and Lime**                            2      0      2

A review of the source, function, and the use of the major and minor plant food elements; commercial fertilizer ingredients; soil acidity, liming materials; application of fertilizer and liming materials.

**AGR 140 Vegetable Production**                            2      0      2

This course stresses the production practices involved in land care and use for vegetable farming. Emphasis will be placed on harvesting and marketing.

**AGR 141 Surveying**    3      9      6

Theory and practice of elementary plane surveying including horizontal measurements, differential and profile leveling, cross sections, earth-work computations, transit, stadia, and transit-tape surveys.

**AGR 142 Agriculture Finance**                            2      0      2

Analysis of the capital structure of modern commercial agriculture with emphasis on the sources of credit. A review of lending institutions, repayment, schedules, and credit instruments. Practice in the procedure of evaluating farm resources with attention to information needed for valuation, appraisal forms and procedures, discounting and depreciation.

**AGR 143 New Sources of Farm Income**                    2      0      2

This is a study of new areas of production that are not in practice in the student's present farming program. The farm enterprise system will be analyzed and new enterprises suggested.

**AGR 144 Opportunities in Agriculture Business**

2 0 2

This course presents the opportunities for part or full-time employment in farm-related occupations. Agriculture businesses such as feeds and fertilizers as well as farm custom machinery work are considered.

**AGR 170 Plant Science**

3 4 5

An introductory general botany and crop science course covering the fundamental principles of the reproduction, growth, functions, and development of seed bearing plants with application to certain commercially important plants in North Carolina.

**AGR 185 Soil Science & Fertilizer**

3 6 6

A course dealing with the basic principles of efficient classification, evaluation, and management of soils; care, cultivation and fertilization of the soil, and conservation of soil fertility. Includes a review of the source, function, and the use of the major and minor plant food elements; commercial fertilizer ingredients; soil acidity, liming materials; application of fertilizer and liming materials.

**AGR 201 Agricultural Chemicals**

3 2 4

A study of agricultural chemicals — their importance, ingredients, formulation, and application with emphasis upon the effective and safe utilization of chemicals in agricultural pest control. Major emphasis is placed upon weed identification and those chemicals utilized for weed control. Part of the course is devoted to those chemicals other than herbicides — such as insecticides, fungicides, and others.

**AGR 204 Farm Business Management**

3 0 3

A review of the functions of the manager of a business firm and the problems he faces. Development of the concept of planning by both partial and complete budgeting. Review of the concepts of costs and the length of run in production. Practice in preparing enterprise budgets as an aid in choosing what to produce. Use of partial budgeting to find the least cost production procedure. Analysis of production data to select the level of production that yields the most net revenue. Relationship between size, efficiency and income of a farm. Review of procedures for evaluating the efficiency of the manager.

**AGR 205 Agricultural Marketing**

3 2 4

An analysis of the functions of marketing in the economy and a survey of the problems marketing faces. A review of the market structure and the relationship of local, terminal, wholesale, retail, and foreign markets. Problems in the operations of marketing firms — including buying and selling, processing, standardization and grading, risk taking and storage, financing, efficiency, and co-operation. Discussion of procedures of marketing such commodities as grain, cotton, livestock, and tobacco.

**AGR 218 Agricultural Mechanization**

4 6 7

A study of farm machinery management and labor-saving devices. The economics of selection and operation of farm machinery. Study and evaluation of feed grinders and mixers, storage facilities, materials handling systems, and other labor-saving devices.

<b>AGR 226 Swine Production</b>	3	2	4
Development of swine production and marketing industries; principles and practices of selection, breeding, feeding, housing, marketing, and management of swine.			
<b>AGR 228 Livestock Diseases &amp; Parasites</b>	3	4	5
A course dealing with the common diseases and parasites of livestock; sanitation practices and procedures with emphasis upon the cause, damage, symptoms, prevention, and treatment of parasites and diseases; management factors relating to disease and parasite prevention and control. •			
<b>AGR 278 Weed Identification &amp; Control</b>	3	2	4
A study of the identification and control of the annual and perennial weeds of economic importance in North Carolina.			
<b>AGR 290 Soil Conservation</b>	3	2	4
An introduction to soil and water conservation, covering what is included and who is involved in soil, water, and plant conservation; the available resources to carry out soil and water conservation measures, and the relationship of specialized knowledge in agronomy, biology, economics, engineering, soils, forestry, and recreation.			
<b>BIO 110 Anatomy</b>	3	0	3
An introductory study of anatomy and functions of the human body and its systems, with emphasis upon the interrelatedness of these functions and processes. Thorough coverage of terminology used in day-to-day situations in a medical office.			
<b>BUS 101 Introduction to Business</b>	5	0	5
A survey of the business world with particular attention devoted to the structure of the various types of business organizations, methods of financing, internal organization, and management.			
<b>BUS 102 Typewriting</b>	2	3	3
Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.			
<b>BUS 103 Typewriting</b>	2	3	3
Designed to improve speed and accuracy with continued emphasis on subjects taught in BUS 102.			
Prerequisite: BUS 102			
<b>BUS 104 Typewriting</b>	2	3	3
Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms.			
Prerequisite: BUS 103 or the equivalent.			
Speed requirement, 40 words per minute for five minutes.			

**BUS 106 Shorthand**

3 2 4

A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.

**BUS 107 Shorthand**

3 2 4

Continued study of theory with greater emphasis on dictation and elementary transcription.

Prerequisite: BUS 106 or the equivalent.

**BUS 108 Shorthand**

3 2 4

Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription.

Prerequisite: BUS 107.

**BUS 109R Machine Transcription**

2 3 3

A beginning course in developing the skill of transcribing at the typewriter materials appropriate to the various business and professional offices in which the student may eventually be employed. The objective of the course is accuracy and comprehension, and the student will be expected to complete a minimum of fifty typewritten business forms without error.

Prerequisite: BUS 103.

**BUS 110 Office Machines**

2 3 3

A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, and calculator.

**BUS 111 Business Mathematics**

5 0 5

This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.

**BUS 112 Filing**

3 2 4

Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes and guides. Alphabetic, Triple Check, Automatic, Geographic, Subject, Soundex, and Dewey Decimal Filing.

**BUS 115 Business Law**

5 0 5

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.

**BUS 116 Business Law**

5 0 5

Includes the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights.

Prerequisite: BUS 115.

**BUS 120 Accounting**

3 2 4

Principles, techniques, and tools of accounting, for understanding of the mechanics of accounting. Collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises, to include practical application of the principles learned.

**BUS 121 Accounting**

3 2 4

Continuation of accounting principles learned in BUS 120 with detailed emphasis on notes, deferrals, accruals. Includes a study of current and fixed assets with special attention to receivables, inventory and plant assets.

Prerequisite: BUS 120

**BUS 122 Accounting**

3 2 4

Partnership and corporation accounting including a study of payrolls, federal and state taxes. Emphasis is placed on the recording, summarizing, and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution of management problems.

Prerequisite: BUS 121.

**BUS 123 Business Finance**

5 0 5

Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term, long-term, and consumer financing.

**BUS 183E-L-M Term., Vocabulary & Punctuation**

5 0 5

A course to develop an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices.

**BUS 205 Advanced Typewriting**

2 3 3

Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. These projects include review of letter forms, methods of duplication, statistical tabulation, and the typing of reports, manuscripts, and legal documents.

Prerequisite: BUS 104. Speed requirement, 50 words per minute for five minutes.

**BUS 206E-M-L Dictation & Transcription**

3 2 4

Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar materials at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new materials.

Prerequisite: BUS 108.

**BUS 207E-M-L Dictation & Transcription**

3 2 4

Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material.

Prerequisite: BUS 206E-M-L.

**BUS 208E-M-L Dictation & Transcription**

3 2 4

Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material.

Prerequisite: BUS 207E-M-L.

**BUS 211 Office Machines**

2      3      3

Instructions in the operation of the bookkeeping-accounting machines, duplicating equipment, and the dictating and transcribing machines.

Prerequisite: BUS 110.

**BUS 214 Secretarial Procedures**

3      2      4

Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include the following: receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims.

**BUS 219 Credit Procedures & Problems**

3      0      3

Develops an understanding of the principles of credit collection, control, and security. Presents fundamentals of the collection agency principle.

**BUS 222 Intermediate Accounting**

3      2      4

Thorough treatment of the field of general accounting, providing the necessary foundation for specialized studies that follow. The course includes, among other aspects, the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments, and analysis of working capital.

Prerequisite: BUS 122.

**BUS 223 Intermediate Accounting**

3      2      4

Additional study of intermediate accounting with emphasis on investments, plants and equipment, intangible assets and deferred charges, long-term liabilities, paid-in capital, retained earnings, and special analytical processes.

Prerequisite: BUS 222.

**BUS 225 Cost Accounting**

3      2      4

Nature and purposes of cost accounting; accounting for direct labor, materials, and factory burden; job cost, and standard cost principles and procedures; selling and distribution cost; budgets, and executive use of cost figures.

Prerequisite: BUS 121.

**BUS 229 Taxes**

3      2      4

Application of federal and state taxes to various businesses and business conditions. A study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance.

Prerequisite: BUS 121.

**BUS 232 Sales Development**

5      0      5

A study of retail, wholesale and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required.

**BUS 233 Personnel Management & Supervision**                    5        0        5

A study of the fundamental differences in the theories (schools) in dealing with the human resource in industry. Primary emphasis on human relations management versus the scientific approach. Provides an overview of different methods and techniques of supervision with emphasis on securing an effective work force.

**BUS 235 Business Management**                    5        0        5

Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing, and financing. Clarification of the design-making function versus the operating function. Role of management in business—qualifications and requirements.

**BUS 241 Sales Promotion & Advertising**                    5        0        5

The scope and activities of promoting the selling action with emphasis on the coordination of advertising, display, special events, publicity, and management of the sales force. Special attention is to be given to product and marketing research. Selection of media, means of testing effectiveness of media, writing of advertising copy, budgeting and implementation.

**BUS 247 Business Insurance**                    5        0        5

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included.

**BUS 269 Auditing**                                    3        2        4

This is a course designed to provide modern, basic concepts and principles of auditing through problem solving techniques. Subject matter departs from the traditional approach of mechanical verification of bookkeeping details. Emphasis is on the review approach; which stresses an evaluation of the accounting system, and related internal control, as an indication of the probability that the financial statements produced from the system are accurate and reliable.

Prerequisite: BUS 222.

**BUS 271 Office Management**                    3        0        3

Presents the fundamental principles of office management. Emphasis on the role of office management including its function, office automation, planning, controlling, organizing, and actuating office problems.

**CHM 101 Chemistry**                                    3        4        5

Study of the physical and chemical properties of substances, chemical changes; elements, compounds, gases, chemical combinations, weights and measurements; theory of metals; acids, bases, salts, solvents, solutions, emulsions. In addition, study of carbohydrates, electro-chemistry, electrolytes, and electrolysis in their application of chemistry to industry.

A course providing instruction in the language of chemistry; fundamental chemical laws and theories; preparation and properties of the elements and their compounds; kinetic molecular theory; solutions, the gas laws; and an intensive study of atomic structure. Two lectures per week and three hours of audio-tutorial experience (listening to recorded discussions of the material, viewing film loops, and performing laboratory experiments).

**DFT 101 Technical Drafting**

3      12      7

The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

**DFT 102 Technical Drafting**

1      9      4

The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices for "details" and "working drawings" approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.

Prerequisite: DFT 101.

**DFT 103 Technical Drafting**

3      9      6

Intersection and developments and their practical solutions. Where applicable, model solutions accompany the problems. The various techniques employed to produce and render isometric and oblique drawings, isometric, dimetric and trimetric projections, will be included.

Prerequisite: DFT 102.

**DFT 108 Technical Drafting**

0      6      2

The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

**DFT 109 Technical Drafting**

0      6      2

The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphical analysis of space problems. Problems of

practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices for "details" and "working drawings" approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.

Prerequisite: DFT 108.

**DFT 201 Technical Drafting**

1      9      4

Descriptive geometry with emphasis on the analysis of space problems involving points, lines, planes, connectors, and a combination of these. Further emphasis on the application and construction of charts, graphs, and nomographs in engineering and technical data. Screw threads, springs, keys, rivets, piping, and welding symbols; methods of representing and specifying will be covered. Basic mechanisms of motor transfer, gears and cams, will be studied and drawn with emphasis on methods of specifying, calculating, dimensions, and delineating.

Prerequisite: DFT 103.

**DFT 205 Design Drafting I**

3      9      6

Basic design is introduced in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings and simplified drafting practices constitute areas of study. Types and methods of specifying materials and workmanship are an integral part of the course.

Prerequisites: MAT 102, PHY 102.

**DFT 211 Mechanisms**

2      3      3

Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears, and gear trains.

Prerequisite: DFT 201, MAT 103, PHY 106.

**DFT 230 Structural Drafting**

3      12      7

A study and drawings of structural plans, details and shop drawings of the structural components of buildings and machines to include steel, reinforced concrete, and timber structures. Appropriate symbols, conventions, dimensioning practices, and notes as used by the draftsman will be included. Emphasis will be placed on drafting of appropriate drawings for fabrication and erection of the structural components.

Prerequisites: DFT 103, DFT 205.

**ECO 102 Economics**

5      0      5

The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution, and consumption both in relation to the individual enterprise and to society at large.

**ECO 104 Economics**

3      0      3

Greater depth in principles of economics, including a penetration into the composition and pricing of national output, distribution of income, international trade and finance, and current economic problems.

**ECO 201 Labor Economics and Labor Relations**

3 2 4

Emphasis is placed on the history of the labor movement in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control; and the factors of income and economic security.

Prerequisite: ECO 102.

**EDP 104 Introduction to Data Processing**

3 2 4

Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems. This course is a prerequisite for all programming courses.

**ENG 101 Grammar**

3 0 3

Designed to aid the student in the improvement of self-expression in grammar. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English grammar in their day-to-day situations in industry and social life.

**ENG 101R Grammar**

5 0 5

Designed to aid the student in the improvement of self-expression in grammar. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English grammar in their day-to-day situations in industry and social life.

**ENG 102 Composition**

3 0 3

Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph, and whole composition.

Prerequisite: ENG 101 or ENG 101R

**ENG 103 Report Writing**

3 0 3

The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must relate to the student's specific curriculum.

Prerequisite: ENG 102.

**ENG 104R Executive Spelling**

3 0 3

A realistic learn-to-spell program, presenting key words the student needs to master in order to be able to communicate effectively in the world of business. Particular emphasis will be placed on effective use of the dictionary with words most likely to be encountered by the beginning employee in a business office.

**ENG 201R Advanced Grammar**

5 0 5

An advanced, intensive course in grammar designed to strengthen the ability of the student to express himself in written and oral communication. The

course is also intended to reinforce previously acquired knowledge of machine transcription and to provide additional assistance in the preparation of letters and other business forms.

Prerequisite: ENG 101R.

**ENG 204 Fundamentals of Speech**                            5        0        5

A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emphasis is placed on the speaker's attitude, improving diction, voice, and the application of particular techniques of theory to correct speaking habits and to produce effective oral presentation. Particular attention given to conducting meetings, conferences, and interviews.

Prerequisite: ENG 101 or ENG 101R.

**ENG 206 Business Communication**                            3        0        3

Develops skills in techniques in writing business communications. Emphasis is placed on writing action—getting sales letters and prospectuses. Business reports, summaries of business conferences, letters involving credit, collections, adjustments, complaints, orders, acknowledgements, remittances, and inquiry.

Prerequisite: ENG 102.

**HEA 102 First Aid & Safety**                            3        0        3

A basic course in health education designed to teach the fundamentals of administering first aid. Emphasis is placed on accident prevention and practical application. The American Red Cross Standard Certificate will be issued to students with a grade of "C" or better.

**HOR 150 General Horticulture**                            3        2        4

A course dealing with horticulture principles and the application of plant science fundamentals to horticultural practices.

**ISC 102 Industrial Safety**                            3        0        3

Problems of accidents and fire in industry. Management and supervisory responsibility for fire and accident prevention. Additional topics cover accident reports and the supervisor; good housekeeping and fire prevention; machine guarding and personnel protective equipment; state industrial accident code and fire regulations; the first aid department and the line of supervisory responsibility; job instruction and safety instruction; company rules and enforcement; use of safety committees; insurance carrier and the Insurance Rating Bureau; and advertising and promoting a good safety and fire prevention program.

**ISC 120 Principles of Industrial Management**                            3        2        4

The basic managerial decisions; organizational structure including plant location, building requirements, and internal factory organization; problems of factory operation and control, planning, scheduling, routing factory production, stores control, labor control, purchasing, cost control. Plant problems are utilized as lab experiments.

<b>ISC 202 Quality Control</b>	3	2	4
Principles and techniques of quality control and cost saving. Organization and procedure for efficient quality control. Functions, responsibilities, structure, costs, reports, records, personnel and vendor-customer relationships in quality control. Sampling inspections, process control and tests for significance.			
<b>ISC 207 Foremanship Supervision</b>	3	0	3
The foreman's responsibility for planning, organizing, directing, controlling and coordinating supervisory activities. It teaches the supervisor the basic functions of an organization and his responsibility in carrying out the objectives in accordance with the organization's plan. Included in the course are such topics as establishing lines of authority, functions of departments or units, duties and responsibilities, policies and procedures, and rules and regulations.			
<b>ISC 210 Job Analysis and Evaluation</b>	3	2	4
This study is based on product studies as well as personnel and wage programs. The course utilizes the study of product design, value analysis, materials and processes as an intricate part of productive procedures.			
<b>ISC 211 Work Measurement</b>	3	2	4
Principles of work simplification including administration of job methods improvement, motion study fundamentals and time study techniques. Use of flow and process charts, multiple activity charts, operation charts, flow diagrams and methods evaluation.			
Prerequisite: ISC 210.			
<b>ISC 220 Management Problems</b>	3	0	3
A study of personnel and production problems from the standpoint of the executive. Includes selection and development of products, control problems and techniques, development of standards, employee-employer relations, developing the executive staff. Case studies are utilized.			
Prerequisite : ISC 120.			
<b>ISC 231 Manufacturing Cycles</b>	5	0	5
Purchasing and distribution costs; consumption patterns; channels of distribution; marketing of consumer goods; shopping, specialty, agricultural and industrial goods; service marketing; functional middlemen; speculation and hedging; wholesaling; shipping and warehousing; exporting and trade movements; standardization and grading; pricing, government regulation of competition; sales promotional activities; merchandising practices.			
<b>ISC 235 Industrial Management Seminar</b>	1	2	2
A course designed to offer the student an opportunity to discuss and solve "on the job" problems presented to him by management personnel from industry. Major emphasis will be placed on guest speakers who are required to deal daily in the various subject areas which have been studied previously.			
<b>MAT 101 Technical Mathematics</b>	5	0	5
The real number system is developed as an extension of natural numbers. Number systems of various bases are introduced. Fundamental algebraic			

operations, the rectangular coordinate system, as well as fundamental trigonometric concepts and operations are introduced. The application of these principles to practical problems is stressed.

Prerequisite: Satisfactory evidence that admission requirements have been met.

**MAT 102 Technical Mathematics**

5 0 5

A continuation of MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, determinants, progressions, the binomial expansion, complex numbers, solution of oblique triangles and graphs of the trigonometric functions are studied in depth.

Prerequisite: MAT 101.

**MAT 103 Technical Mathematics**

5 0 5

The fundamental concepts of analytical geometry, differential and integral calculus are introduced. Topics included are graphing techniques, geometric and algebraic interpretation of the derivative, differentials, rate of change, the integral and basic integration techniques. Applications of these concepts to practical situations are stressed.

Prerequisite: MAT 102.

**MEC 101 Machine Processes**

1 6 3

An introductory course designed to acquaint the student with basic hand tools, safety procedures and machine processes of our modern industry. It will include a study of measuring instruments, characteristics of metals and cutting tools. The student will become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming.

**MEC 102 Machine Processes**

1 6 3

Advanced operations on lathe, drilling, boring and reaming machines. Milling machine theory and practice. Thorough study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed.

Prerequisite: MEC 101.

**MEC 103 Machine Processes**

2 3 3

A continued study of the advanced operations on lathe, drilling, boring and reaming machines. Milling machine theory and practice. Thorough study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed.

Prerequisite: MEC 102.

**MEC 205 Strength of Materials**

2 3 3

Study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns and machine components.

Prerequisites: PHY 106, MAT 103.

**MEC 210 Physical Metallurgy**

3 3 4

Introductory course in metallurgy, a basic study of the properties of metals and alloys. Analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Solid (crystalline) structures, methods of designating crystal planes; liquid and vapor phases; phase diagrams; and alloy systems.

Prerequisite: PHY 101.

**MEC 211 Physical Metallurgy**

3 3 4

Properties of metals and alloys, the reactions of metals, diffusion, carburizing, metal bonding and homogenization; recrystallization and grain growth, age hardening, nitriding, internal oxidation; heat treatment of steel; laboratory experiments and demonstrations.

Prerequisite: MEC 210.

**MEC 213 Production Planning**

3 0 3

Day-to-day plant direction; forecasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed in the classroom, and courses of corrective action are developed. Actual layouts are utilized for planning and control.

**MEC 235 Hydraulics and Pneumatics**

3 3 4

The basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs.

Prerequisite: PHY 102.

**PHY 101 Physics: Properties of Matter**

3 2 4

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course.

**PHY 102 Physics: Work, Power, Energy**

3 2 4

The major areas covered in this course are work, power, and energy. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas.

Prerequisites: PHY 101, MAT 101.

**PHY 103 Physics: Work, Energy, & Power**

3 2 4

A continuation of PHY 102 with a more indepth study of statics, forces, gravity, and dynamics. Essential mathematical formulas will be stressed in the practical applications of the theory covered in PHY 102.

Prerequisite: PHY 102.

**PHY 106 Physics: Applied Mechanics**

3 2 4

Concepts and principles of statics and dynamics. Parallel concurrent and non-current force streams in coplanar and noncoplanar situations. Concepts of cen-

troids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion.

Prerequisites: MAT 103, PHY 102.

**POL 102 United States Government**

3 0 3

English and colonial background, the Articles of Confederation, and the framing of the federal constitution. The nature of the federal union; state rights, federal powers, political parties. The general organization and functioning of national government.

**POL 202 State & Local Government**

5 0 5

A study which traces the evolution, growth, and development of American state and local government. A treatment is given of the political and constitutional status of state and local government in relation to the federal system. The functions of state, county, and city governments are taken up in considerable detail.

**PSC 101 Introduction to Police Science**

5 0 5

A general course designed to familiarize the student with the philosophy and history of law enforcement, including its legal limitations in a democratic republic, a survey of the primary duties and responsibilities of the various law enforcement agencies, a delineation of the basic processes of justice, an evaluation of law enforcement's current position, and an orientation relative to law enforcement as a vocation.

**PSC 102 Motor Vehicle Laws**

3 0 3

A study of the traffic enforcement codes with primary emphasis placed on North Carolina law.

**PSC 105 Introduction to Criminology**

5 0 5

A survey of the different crimes; theories and factors attributing to criminal behavior. The student will study some of the penal and correctional procedures which have been used in the past, as well as some of the contemporary methods.

**PSC 106 Identification Techniques**

3 2 4

The student will study various identification methods and how they evolved into the present day systems. Techniques for lifting latent prints and taking rolled impressions will be developed through lab practice. Instruction will be given in the more popular ten-finger and single-print classification systems. An introduction will be given to the process of comparing latent lifts and rolled impressions and in preparing them for courtroom presentation.

**PSC 110 Police Role in Crime & Delinquency**

3 0 3

An introduction to the cause and treatment of juvenile delinquency. The organization, functions, and jurisdictions of juvenile agencies; the processing and detention of juveniles, juvenile case disposition, juvenile status and court procedures. Evaluation of methods in delinquency control. Special attention will be given to forms of family, church, and community resources bearing on juvenile adjustment and preventative measures.

**PSC 115 Criminal Law I**

3 0 3

Designed to present a basic concept of criminal law and create an appreciation of the rules under which one lives in our system of government. Primary emphasis will be placed on North Carolina law.

**PSC 116 Criminal Law II**

3 0 3

A continuation of Criminal Law I which presents a basic concept of criminal law and creates an appreciation of the rules under which one lives in our system of government. Primary emphasis will be placed on North Carolina law.

Prerequisite: PSC 115.

**PSC 201 Traffic Planning & Management**

5 0 5

A study which covers the history of the traffic enforcement problems and gives an overview of the problem as it exists today. Attention will be given to the three E's and legislation, the organization of the traffic unit, the responsibilities to the traffic function of the various units within the law enforcement agency, enforcement tactics, evaluation of the traffic program effectiveness, and the allocation of men and materials.

**PSC 202 Police Community Relations**

2 0 2

A course designed to create an awareness of the need for good police and community relationships; problems confronting police personnel in achieving this goal; solutions to these problems, including a survey of non-police agencies dealing with police problems and how they can best work together to achieve their common goal.

Prerequisite: Permission of instructor/coordinator.

**PSC 204 Police Photography**

3 2 4

A study of photographic equipment and its applications to the field of law enforcement. Instruction will be given in all phases of the photographic process, including crime scene surveillance, macro- and microphotography, including the development of negatives and prints. The student will develop techniques in the use of different kinds of cameras and other photographic equipment through lab practice.

Prerequisite: CHM 105R.

**PSC 205 Criminal Evidence**

3 0 3

Instruction covers the kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

Prerequisite: PSC 115 and PSC 116.

**PSC 208 Applied Police Psychology**

3 0 3

Designed to assist law enforcement officers in a better understanding of relationships on the job, at home, and in the community as members of the law enforcement team.

**PSC 210 Criminal Investigation**

3 4 5

This course introduces the student to the fundamentals of investigation; crime scene search; recording, collection, and preservation of evidence; case preparation and court presentation; and the investigation of specific offenses such as arson, narcotics, sex, larceny, burglary, robbery, and homicide.

Prerequisite: Admission to the program; permission of the instructor/coordinator.

**PSC 211 Introduction to Criminalistics**

3 2 4

A general survey of the methods and techniques used in modern scientific investigation of crime, with emphasis upon the practical use of these methods by the students. Laboratory techniques will be demonstrated and the student will participate in actual use of the scientific equipment.

Prerequisite: Admission to the program; permission of instructor/coordinator.

**PSC 212 Forensic Science**

3 2 4

A survey of the various sciences and their application to the field of law enforcement. A study of the theory and techniques used in the more common forensic applications, such as blood grouping, blood alcohol, luminol, drug analysis, flammable accelerants, explosives, serial number restoration, firearms, primer residue test, etc. Prerequisite: CHM 105R.

**PSC 217 Laws of Arrest, Search, & Seizure**

5 0 5

The constitutional requirements and limitations for a lawful arrest and legal search and seizure. Federal and state judicial decisions concerning these requirements will be studied.

**PSC 219 Administration of Justice**

5 0 5

A study of the functions and responsibilities of our federal, state, and local court systems.

**PSC 220 Police Organization & Administration**

3 0 3

An introduction to the principles of organization and administration, including their application to field services, such as vice control, traffic patrol, criminal investigation, and juvenile division. A discussion of the service functions; e.g., training, communications, records, property maintenance, and miscellaneous services.

**PSC 221 Police Supervision**

3 0 3

A continuation of PSC 220, with emphasis on developing supervisory and management techniques employed at the various levels of police work.

Prerequisite: PSC 220.

**PSC 225 Criminal Procedure**

2 0 2

This course is designed to provide the student with a review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state, and civil laws as they apply to and affect law enforcement.

Prerequisite: Permission of instructor/coordinator.

<b>PSC 230 Human Relations</b>	3	0	3
A study of concepts and attitudes held by police in relation to brutality, dishonesty, and minority groups.			
<b>PSC 240 Firearms &amp; Defensive Tactics</b>	3	2	4
This course is designed to help the student develop an understanding of the need, use, and respect for all kinds of firearms. Range practice will be given in the use of rifles, shotguns, and pistols with a special effort made to develop proficiency in the use of the service revolver. Instruction will be given in riot control, nonlethal weapons such as tear gas, and defensive tactics used in the handling of arrested persons.			
Prerequisite: Enrollee must be a law enforcement officer at the present time, or have at least six quarter hours credit in Police Science and permission of instructor.			
<b>PSY 103 Adolescent Psychology</b>	3	0	3
This course is designed to give the student some practical experience in the use of firearms. Major emphasis will be placed on the law enforcement officer staying in practice in the use of a pistol.			
Prerequisite: Enrollee must be a law enforcement officer at the present time, or have at least six quarter hours credit in Police Science and permission of instructor.			
<b>PSY 112 Personal Development</b>	3	0	3
Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement.			
<b>PSY 206 Applied Psychology</b>	3	0	3
A study of the principles of psychology that will be of assistance in the understanding of interpersonal relations on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are: employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community.			
<b>SOC 201 Principles of Sociology</b>	5	0	5
An introductory course designed to impart to the student a knowledge of himself in social context. Interrelationships in such areas as personality, society, and culture are examined. The student is familiarized with major social processes and institutional functions.			
<b>SSC 201 Social Science</b>	3	0	3
An integrated course in the social sciences, drawing from the fields of anthropology, psychology, history, and sociology.			



# VOCATIONAL DIPLOMA PROGRAMS



# AIR CONDITIONING AND REFRIGERATION

## INTRODUCTION

In recent years the use of air conditioning and refrigeration equipment has increased tremendously. Practically all new building construction for business and commercial use has "all year" comfort systems. Many homes now have air conditioning and the trend is toward greater use of "all year" systems of cooling and heating. The food industry is requiring greater use of refrigeration systems in freezing, storage, and display of products. With this great up-swing in the use of air conditioning and refrigeration equipment, a greater demand is made on trained personnel to install, operate, maintain and service this equipment.

## PURPOSE

This curriculum is designed to give the students practical knowledge that will enable them to become capable servicemen in the industry. The principle objective has been to outline the required technical and related instruction to enable them to understand the basic principles involved in the construction, operation, and maintenance of equipment. Job opportunities exist with companies that specialize in air conditioning, automatic heating, sheet metal, and commercial refrigeration installation and service. The service man is employable in areas of sales, maintenance, installation and in the growing fields of truck and trailer refrigeration.

## JOB DESCRIPTION

The air conditioning and refrigeration mechanic installs, inspects, maintains, services and repairs domestic and commercial equipment; connects motors, compressors, temperature controls, humidity controls, and circulating fans to control panels; tests systems, observes pressure and vacuum gauges, and adjusts controls to insure proper operation.

## AIR CONDITIONING AND REFRIGERATION

		Hours Per Week	Quarter Hours Credit	
		Class	Lab	Shop
<b>FALL QUARTER</b>				
AHR	1121 Principles of Refrigeration	3	0	12
MAT	1101 Fundamentals of Mathematics	5	0	0
PHY	1101 Applied Science	3	2	0
DFT	1116 Blueprint Reading: Air Conditioning	2	0	3
		<hr/>	<hr/>	<hr/>
		13	2	15
				19
<b>WINTER QUARTER</b>				
ENG	1101 Reading Improvement	5	0	0
AHR	1122 Domestic and Commercial Refrigeration	3	0	12
AHR	1127 Intro. To Automatic Controls	5	0	0
PHY	1102 Applied Science (Electricity)	3	2	0
		<hr/>	<hr/>	<hr/>
		16	2	12
				21

			Hours Per Week	Quarter Hours Credit	
			Class	Lab	Shop
<b>SPRING QUARTER</b>					
ENG 1102	Communication Skills		3	0	0
AHR 1123	Principles of Air Conditioning		3	0	9
AHR 1128	Automatic Controls		3	0	6
PSY 1101	Human Relations		3	0	0
WLD 1103	Basic Gas Welding		0	0	3
			<hr/>	<hr/>	<hr/>
			12	0	18
					18
<b>SUMMER QUARTER</b>					
AHR 1124	Air Conditioning and Refrigeration Servicing		3	0	6
AHR 1126	All Year Comfort Systems		3	0	6
MEC 1120	Duct Construction and Maintenance		3	0	6
BUS 1103	Small Business Operations		3	0	0
			<hr/>	<hr/>	<hr/>
			12	18	18
					18

## AUTOMOTIVE MECHANICS

### INTRODUCTION

Complexity in automotive vehicles increases each year because of scientific discovery and new engineering. These changes are reflected not only in passenger vehicles, but also in trucks, buses, and a variety of gasoline-powered equipment. This curriculum provides a basis for the student to compare and adapt to new techniques for servicing and repair as vehicles are changed year by year.

### PURPOSE

The Automotive Mechanics curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, adjust, and repair automotive vehicles. Manual skills are developed in practical shop work. Thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussion, and shop practice. General objectives of the Automotive Mechanics curriculum are to develop the following competencies:

1. Understanding of the principles of operation of the internal combustion engine to include mathematics and physics as they apply;
2. Develop ability to read and understand blueprints, sketches, and drawings of all automotive systems;
3. Introduction to welding for automotive mechanics;
4. Knowledge of human relations, business communications, and an introduction to small business operations.

### JOB DESCRIPTION

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities and rural areas, they may also service tractors, marine engines, and other gasoline-powered equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They are responsible for the use of shop manuals and other technical publications.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. In larger shops, mechanics may specialize in one particular area; i. e., engine tuneups, transmissions, power equipment, etc.

## AUTOMOTIVE MECHANICS

		Hours Per Week			Quarter Hours Credit
		Class	Lab	Shop	
<b>FALL QUARTER</b>					
MAT 1101	Fundamentals of Mathematics	5	0	0	5
DFT 1101	Schematics and Diagrams (Engines, Measurements, and Tools)	3	2	0	4
PME 1101	Internal Combustion Engines	5	0	15	10
		13	2	15	19
<b>WINTER QUARTER</b>					
ENG 1101	Reading Improvement	5	0	0	5
PHY 1101	Applied Science (Automotive Related)	3	2	0	4
DFT 1102	Schematic and Diagrams (Electrical and Fuel Systems)	3	2	0	4
PME 1102	Engine Electrical and Fuel Systems	3	0	12	7
		14	4	12	20
<b>SPRING QUARTER</b>					
ENG 1102	Communications Skills	3	0	0	3
PHY 1102	Applied Science (Automotive Related)	3	2	0	4
PSY 1101	Human Relations	3	0	0	3
AUT 1121	Automotive Braking Systems	2	0	3	3
AUT 1123	Automotive Chassis and Suspension Systems	2	0	12	6
		13	2	15	19
<b>SUMMER QUARTER</b>					
BUS 1103	Small Business Operation	3	0	0	3
AHR 1101	Automotive Air Conditioning	1	0	6	3
AUT 1124	Automotive Power Train Systems	3	0	12	7
WLD 1101	Basic Welding (Introduction)	2	0	3	3
		9	0	21	16

## CARPENTRY

### INTRODUCTION

Carpentry is one of the basic trades in the construction field. Carpenters construct, erect, install, and repair structures of wood, plywood, and wallboard, using hand and power tools. The work must conform to local building codes for both residential and commercial structures.

### PURPOSE

The Carpentry curriculum is designed to provide the essential training in, and knowledge of the basic carpentry skills which will allow the graduate to be immediately effective upon entering the trade. Additional objectives of the Carpentry curriculum are to develop the following competencies:

1. Skill in the use and maintenance of hand and power tools;
2. Blueprint reading, methods of construction, carpentry mathematics, and building codes;
3. Understanding of the principles of layout, concrete form construction, scaffolding, cabinetmaking and millwork, and finishing.

## **JOB DESCRIPTION**

The carpenter constructs, erects, installs, and repairs structures and fixtures of wood, plywood, wall board and other materials, using carpenters' hand tools and power tools to conform to local building codes. He is required to use blueprints, sketches, or building plans for information pertaining to type of material, dimensions, layout and design of structure, and method of construction.

## **CARPENTRY**

		Hours Per Week		Quarter Hours	
		Class	Lab	Shop	Credit
<b>FALL QUARTER</b>					
MAT 1112	Building Trades Math (Carpentry)	5	0	0	5
CAR 1101	Carpentry: Tools, Processes, and Introduction to Framing	4	0	21	11
		9	0	21	16
<b>WINTER QUARTER</b>					
ENG 1101	Reading Improvement	5	0	0	5
DFT 1110	Blueprint Reading: Building Trades	3	2	0	4
MAT 1113	Building Trades Math (Carpentry)	5	0	0	5
CAR 1102	Carpentry: Framing	3	0	12	7
		16	2	12	21
<b>SPRING QUARTER</b>					
ENG 1102	Communication Skills	3	0	0	3
PSY 1101	Human Relations	3	0	0	3
CAR 1103	Carpentry: Finishing	4	0	15	9
DFT 1111	Blueprint Reading and Sketching	3	2	0	4
		13	2	15	19
<b>SUMMER QUARTER</b>					
BUS 1103	Small Business Operations	3	0	0	3
CAR 1114	Building Codes	3	0	0	3
CAR 1104	Carpentry: Cabinetmaking	4	0	15	9
CIV 1101	Introduction to Surveying	2	0	3	3
		12	0	18	18

## **COSMETOLOGY**

Cosmetologists advise men and women on problems of make-up, diet, care of the hair, skin, hands, and nails. Cosmetology has become a science consisting of the use of cosmetics based on scientific principles.

The Cosmetology curriculum is designed to prepare the student for employment in the field of cosmetology. Instruction and practice are provided in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair cutting and styling. This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

A variety of job opportunities are available with cosmetic firms, beauty salons, department stores, etc.

## COSMETOLOGY

		Hours Per Week	Quarter
		Clinical	Hours
		Lab	Credit
<b>FALL QUARTER</b>			
COS 1101	Introduction to Cosmetology	9	9
COS 1102	Mannequin Practice	3	10
		<u>12</u>	<u>19</u>
<b>WINTER QUARTER</b>			
ENG 1102	Communication Skills	3	3
COS 1103	Theory of Cosmetology	9	9
COS 1104	Cosmetology Skills	3	10
		<u>15</u>	<u>22</u>
<b>SPRING QUARTER</b>			
COS 1105	Theory of Cosmetology	9	9
COS 1106	Cosmetology Skills	3	10
PSY 1101	Human Relations	3	3
		<u>15</u>	<u>22</u>
<b>SUMMER QUARTER</b>			
COS 1107	Salon Management	9	9
COS 1108	Advanced Hairdressing	3	10
		<u>12</u>	<u>19</u>
<b>ELECTIVE QUARTER</b>			
COS 1199	Cosmetology for Graduates	0	4

## ELECTRICAL INSTALLATION AND MAINTENANCE

### INTRODUCTION

The rapid expansion of the national economy and the increasing development of new electrical products is providing a growing need for qualified people to install and maintain electrical equipment. More and more tradesmen are required each year to replace those leaving the industry. It is expected that the demand for electrical tradesmen will continue to increase during the 1970's. The majority of the electrical tradesmen today are trained through apprenticeship or on-the-job training programs.

### PURPOSE

This curriculum will provide a training program which will give the graduate a basic knowledge of electricity and the fundamentals and practices involved in the electrical trades. A large portion of the program is devoted to laboratory and shop instruction, which is designed to give the student practical knowledge and application experience in the fundamentals taught in class.

### JOB DESCRIPTION

The graduate of the electrical trades program will be qualified to enter an electrical trade as an on-the-job trainee or apprentice, where he will assist in the planning, layout, installation, check out, and maintenance of systems in residential, commercial, or industrial areas. He will have an understanding of the fundamentals of the National Electrical Code regulations as related to wiring installations, electrical circuits, and the measurements of voltage, current, power, and power

factor of single and polyphase alternating circuits. He will have a basic knowledge of motors and motor control systems; industrial electronic control systems; business procedures, organization, and practices; and communicative skills.

## ELECTRICAL INSTALLATION AND MAINTENANCE

			Hours Per Week	Quarter Hours	Credit
			Class	Lab	Shop
<b>FALL QUARTER</b>					
MAT 1115	Electrical Mathematics		5	0	0
ELC 1124	Residential Wiring		5	0	15
DFT 1110	Blueprint Reading: Building Trades		3	2	0
			13	2	15
					19
<b>WINTER QUARTER</b>					
ENG 1101	Reading Improvement		5	0	0
DFT 1113	Blueprint Reading: Electrical		3	2	0
PHY 1101	Applied Science: Electrical		3	2	0
ELC 1112	Direct and Alternating Current		6	0	9
			17	4	9
					22
<b>SPRING QUARTER</b>					
MAT 1116	Electrical Mathematics		5	0	0
ENG 1102	Communication Skills		3	0	0
PSY 1101	Human Relations		3	0	0
ELC 1113	Direct and Alternating Current: Motors and Controls		4	0	15
			15	0	15
					20
<b>SUMMER QUARTER</b>					
BUS 1103	Small Business Operations		3	0	0
ELC 1125	Commercial and Industrial Wiring		9	0	18
			12	0	18
					18

## INDUSTRIAL MAINTENANCE ELECTROMECHANICAL

### INTRODUCTION

North Carolina, in its tremendous industrial growth, has the need for highly skilled personnel to maintain machines that are controlled by electrical and fluid power devices.

### PURPOSE

This curriculum is designed to prepare the student to repair and maintain machinery, electrical wiring and fixtures, and hydraulics and pneumatic devices found in industrial establishments. He uses blueprints and sketches, manuals and codes, and works with hand tools made for electricians and machinists. He diagnoses causes of malfunctions in industrial machines. He sets up and operates machine tools such as the lathe, milling machine, and drill press to repair or make machine parts. He installs machine parts, starts machines, observes operations, and inspects the machine with test instruments.

## JOB DESCRIPTION

An industrial serviceman may be required to install, maintain, and service electrical and mechanical equipment. He should be able to follow directions from blueprints and sketches, use hand tools and metal working machines, and check the work with measuring and testing instruments. He operates metal working machines such as the lathe, milling machine, and drill press to make repairs. He uses the micrometer and calipers to verify dimensions. He assembles wires, insulation, and electrical components, using hand tools and soldering equipment. He tests electrical circuits and components to locate shorts, faulty connections, and defective parts, using test meters. He also inspects and tests hydraulic equipment after new installations or repairs.

## INDUSTRIAL MAINTENANCE ELECTROMECHANICAL

		Hours Per Week			Quarter Hours	
		Class	Lab	Shop	Credit	
<b>FALL QUARTER</b>						
DFT	1104	Blueprint Reading: Mechanical	3	2	0	4
MEC	1101R	Machine Shop Theory and Practice	4	0	6	6
MAT	1101	Fundamentals of Mathematics	5	0	0	5
ENG	1101	Reading Improvement	5	0	0	5
PHY	1101	Applied Science (Mechanical)	3	2	0	4
			20	4	6	24
<b>WINTER QUARTER</b>						
ELC	1112R	Direct and Alternating Current	6	0	9	9
WLD	1104	Basic Welding and Cutting	4	0	6	6
DFT	1113	Blueprint Reading: Electrical	3	2	0	4
			13	2	15	19
<b>SPRING QUARTER</b>						
ISC	1101	Industrial Safety	3	0	0	3
ENG	1102	Communication Skills	3	0	0	3
PSY	1101	Human Relations	3	0	0	3
AHR	1124	Air Conditioning and Refrigeration Service	4	0	12	8
ELC	1113A	Introduction to Electric Motors and Controls	2	0	3	3
			15	0	15	20
<b>SUMMER QUARTER</b>						
PLU	1110	Plumbing-Pipe Work	5	0	3	6
ELC	1113B	Electric Motors and Controls	3	0	3	4
BUS	1103	Small Business Operations	3	0	0	3
MEC	1133	Mechanical Maintenance	4	0	9	7
			15	0	15	20

## MACHINIST

### INTRODUCTION

This curriculum was prepared to meet a definite need for training of machinists. Surveys completed in North Carolina show that many of the existing industries lack time and facilities for training enough machinists to meet present and planned needs. Expanding industries already located in our State and new industries under development invariably express the need for skilled craftsmen who have the background knowledge and potential to advance.

## PURPOSE

This guide is designed to give learners the opportunity to acquire basic skills and the related technical information necessary to gain employment and build a profitable career in the machine shop industry.

## JOB DESCRIPTION

The machinist is a skilled metal worker who shapes metal parts by using machine tools and hand tools. His training and experience enable him to plan and carry through all the operations needed in turning out a machined product and to switch readily from one kind of product to another. A machinist is able to select the proper tools and material required for each job and to plan the cutting and finishing operations in their proper order so that he can complete the finished work according to blueprint or written specifications. He makes standard shop computations relating to dimensions of work, tooling, feeds, and speeds of machining. He often uses precision measuring instruments such as micrometers and gauges to measure the accuracy of his work to thousandths of an inch.

This skilled worker must be able to set up and operate most types of machine tools. The machinist also must know the composition of metals so that he can heat and quench cutting tools and parts to improve machinability. His wide knowledge enables him to turn a block metal into an intricate precise part.

## MACHINIST

		Hours Per Week		Quarter Hour	Credit
		Class	Lab	Shop	
<b>FALL QUARTER</b>					
MEC 1101	Machine Shop Theory and Practice	3	0	12	7
MAT 1101	Fundamentals of Mathematics	5	0	0	5
DFT 1104	Blueprint Reading: Mechanical	3	2	0	4
PHY 1101	Applied Science	3	2	0	4
		14	4	12	20
<b>WINTER QUARTER</b>					
ENG 1101	Reading Improvement	5	0	0	5
MEC 1102	Machine Shop Theory and Practice	3	0	12	7
MAT 1123	Machinist Mathematics	3	2	0	4
DFT 1105	Blueprint Reading: Mechanical	3	2	0	4
		14	4	12	20
<b>SPRING QUARTER</b>					
ENG 1102	Communication Skills	3	0	0	3
MEC 1103	Machine Shop Theory and Practice	4	0	15	9
MEC 1115	Treatment of Ferrous Metals	2	0	3	3
PSY 1101	Human Relations	3	0	0	3
		12	0	18	18
<b>SUMMER QUARTER</b>					
MEC 1104	Machine Shop Theory and Practice	2	0	15	7
MEC 1116	Treatment of Non-Ferrous Metals	2	0	3	3
WLD 1101	Basic Welding	2	0	3	3
BUS 1103	Small Business Operations	3	0	0	3
		9	0	21	16

# MASONRY

## INTRODUCTION

Masons are the craftsmen in the building trades that work with artificial stone, brick, concrete masonry units and stone. During the past decade there has been a steady increase in the demand for these craftsmen. As building construction continues to increase, the demand for bricklayers, cement masons, and stone masons will also increase.

## PURPOSE

The Masonry curriculum is designed to provide the essential training in and knowledge of the basic masonry skills which will allow the graduate to be immediately effective upon entering the trade. Additionally, other objectives of the Masonry curriculum are to develop the following competencies:

1. Blueprint reading and job layout;
2. Understanding and appreciation of masonry mathematics;
3. Skill and understanding of masonry estimating;
4. Develop speed and accuracy required in actual construction.

## JOB DESCRIPTION

The duties and responsibilities of masons include job layout from blueprints, foundation preparation, and laying of brick, block, tile, and stone in residential and commercial construction. After gaining experience in the various types of the masonry trade along with leadership training, it is possible for the tradesman to become a foreman, inspector, and eventually a contractor.

## MASONRY

				Hours Per Week	Quarter Hours		
				Class	Lab	Shop	Credit
<b>FALL QUARTER</b>							
MAT	1112	Building Trades Math	(Masonry)	5	0	0	5
MAS	1101	Bricklaying		4	0	21	11
				9	0	21	16
<b>WINTER QUARTER</b>							
DFT	1110	Blueprint Reading: Building Trades		3	2	0	4
ENG	1101	Reading Improvement		5	0	0	5
MAT	1113	Building Trades Math	(Masonry)	5	0	0	5
MAS	1102	Bricklaying		3	0	12	7
				16	2	12	21
<b>SPRING QUARTER</b>							
ENG	1102	Communication Skills		3	0	0	3
PSY	1101	Human Relations		3	0	0	3
MAS	1103	General Masonry		6	0	18	12
				12	0	18	18
<b>SUMMER QUARTER</b>							
CIV	1101	Introduction to Surveying		2	0	3	3
MAS	1104	General Masonry		4	0	18	10
BUS	1103	Small Business Operations		3	0	0	3
				9	0	21	16

# PRACTICAL NURSING

## INTRODUCTION

The accelerated growth of population in North Carolina and rapid advancement in medical technology demand an increased number of well-trained personnel for health services. Realizing this need, the North Carolina Department of Community Colleges, in conjunction with local hospitals, administers programs of practical nurse education throughout the state.

Students are selected on the basis of demonstrated aptitude for nursing, as determined by pre-entrance tests, interviews with faculty members, high school record, character references, and reports of medical and dental examinations.

Graduates of accredited programs of Practical Nurse Education are eligible to take the licensing examinations given by the North Carolina Board of Nursing. This examination is given twice each year, usually in April and September. A passing score entitles the individual to receive a license and to use a legal title "Licensed Practical Nurse." The license must be renewed annually. The Licensed Practical Nurse can apply for licensure in other states on the basis of a satisfactory examination score, without repeating the examination.

## PURPOSE

The aim of the Practical Nurse Education program is to prepare qualified persons for participation in care of patients of all ages, in various states of dependency, and with a variety of illness conditions.

Throughout the one-year program the student is expected to continuously acquire knowledge and understanding related to nursing and the biological and social sciences and to develop skills related to nursing practice, communications, interpersonal relations, and use of good judgment. Evaluation of student performance consists of tests on all phases of course content, evaluation of clinical performance, and evaluation of adjustment to the responsibilities of nursing. A passing score is required on all graded work, plus demonstrated progress in application of nursing skills to actual patient care.

A graduate of the Licensed Practical Nurse program will have suitable personal characteristics, ability to adapt knowledge and understanding of nursing principles to a variety of situations, technical skills for performance of bedside nursing, appreciation for differences of people and for the worth of every individual, a desire to serve and to help others, and readiness to conform to the requirements of nursing ethics and hospital policies.

## JOB DESCRIPTION

The Licensed Practical Nurse is prepared to function in a variety of situations: hospitals of all types, nursing homes, clinics, doctors' and dentists' offices, and in some localities, public health facilities. In all situations the LPN functions under supervision of a registered nurse and/or licensed physician. This supervision may be minimal in situations where the patient's condition is stable and not complex; or it may consist of continuous direction in situations requiring the knowledge and skills of the registered nurse or physician. In the latter situation, the LPN may function in an assisting role in order to avoid assuming responsibility beyond that for which the one-year program can prepare the individual.

## PRACTICAL NURSING

			Hours Class/	Per Lab	Quarter Clinic	Contact Hours Per Quarter	Quarter Hours Credit
<b>FALL QUARTER</b>							
NUR	1101	Fundamentals of Practical Nursing	55	42	*60	157	8
NUR	1102	Body Structure & Function	55	28	0	83	6
MAT	1105	Math for Nurses	55	0	0	55	5
ENG	1101	Reading Improvement	55	0	0	55	5
			220	70	*60	350	24
<b>WINTER QUARTER</b>							
NUR	1107	Medical Surgical Nursing	44	22	264	330	13
NUR	1111	Drug Administration	11	11	0	22	2
NUR	1105	Nutrition	33	0	0	33	3
			88	33	264	385	18
<b>SPRING QUARTER</b>							
NUR	1110	Medical Surgical Nursing	77	22	176	275	13
PSY	1101	Human Relations	33	0	0	33	3
NUR	1114	Family Units	33	0	0	33	3
			143	22	176	341	19
<b>SUMMER QUARTER</b>							
NUR	1108	Obstetric-Pediatric Nursing	50	20	240	310	14
NUR	1116	Vocational Adjustment	20	0	0	20	2
NUR	1120	Nursing Skills Seminar	20	0	0	20	2
			90	20	240	350	18

\*Last Four (4) Weeks of Quarter

## RADIO, TELEVISION, AND ELECTRONIC SERVICING

### INTRODUCTION

Within recent years, improved electronic techniques have provided expanded entertainment and educational facilities in the form of monochrome and color television, frequency modulated radio, high fidelity amplifiers, and stereophonic sound equipment. These developments require expanded knowledge and skill of the individual who would qualify as a competent and up-to-date serviceman.

### PURPOSE

This curriculum guide provides a training program which will provide the basic knowledge and skills involved in the installation, maintenance and servicing of radio, television, and sound amplifier system. A large portion of time is spent in the laboratory verifying electronic principles and developing servicing techniques.

### JOB DESCRIPTION

A radio and television serviceman may be required to install, maintain, and service amplitude modulated and frequency modulated home and auto radios, transistorized radios, monochrome and color television sets, intercommunication, public address and paging systems, high fidelity and stereophonic amplifiers, record players, and tape recorders.

His work will require meeting the public both in the repair shop and on service calls. A serviceman who establishes his own business will also need to know how to maintain business records and inventory.

## RADIO, TELEVISION, AND ELECTRONIC SERVICING

		Hours Per Week	Quarter Hours Credit
		Class	Shop
<b>FALL QUARTER</b>			
MAT	1115 Electrical Mathematics	5	0
ENG	1101 Reading Improvement	5	0
ELC	1112R Direct and Alternating Current	8	12
		18	12
			22
<b>WINTER QUARTER</b>			
MAT	1116 Electrical Mathematics	5	0
ELN	1122 Vacuum Tubes and Electronic Circuits	5	12
ELN	1123 Amplifier Systems	2	6
		12	18
			18
<b>SPRING QUARTER</b>			
ENG	1102 Communicative Skills	3	0
ELN	1126 Transistor Theory and Electronic Circuits	3	9
ELN	1125 Radio Receiver Servicing	3	9
PSY	1101 Human Relations	3	0
		12	18
			18
<b>SUMMER QUARTER</b>			
ELN	1127 Television Receiver Circuits & Servicing	10	17
BUS	1103 Small Business Operations	3	0
		13	17
			18

## WELDING

### INTRODUCTION

This curriculum was developed to fill the tremendous need for welders in North Carolina. The recently completed Manpower Survey shows quite clearly that many welders will be needed annually to fill present and projected vacancies in the State.

The field of welding offers a person prestige, security, and a future of continuous employment with steady advancement. It offers employment in practically any industry: shipbuilding, automotive, aircraft, guided missiles, railroads, construction, pipe fitting, production shop, job shop, and many others.

### PURPOSE

The content of this curriculum is designed to give students sound understanding of the principles, methods, techniques, and skills essential for successful employment in the welding field and metals industry.

Objectives of the Welding curriculum are to develop the following competencies:

1. Understanding the principles of operation of oxyacetylene, arc, and inert gas welding;

2. Thorough development of all manual welding skills and related testing, inspection, and certification practices;
3. Understanding of the physics and mathematics applicable to welding;
4. Ability to read and interpret blueprints, drawings, mechanical patterns, and sketches;
5. Knowledge of human relations and business communication.

## JOB DESCRIPTION

Welders join metals by applying intense heat, and sometimes pressure, to melt the edges to form a permanent bond. Closely related to welding is "oxygen cutting." Of the more than 35 different ways of welding metals, arc, gas, and resistance welding are the three most important.

The principal duty of the welder using manual techniques is to control the melting by directing the heat from either an electric arc or gas welding torch, and to add filler metal where necessary to complete the joint. He should possess a great deal of manipulative skill with a knowledge of jigs, welding symbols, mathematics, basic metallurgy, and blueprint reading.

## WELDING

				<i>Hours Per Week</i>	<i>Quarter Hours</i>		
				<i>Class</i>	<i>Lab</i>	<i>Shop</i>	<i>Credit</i>
<b>FALL QUARTER</b>							
PHY 1101	Applied Science (Welding Related)			3	2	0	4
DFT 1104	Blueprint Reading: Mechanical			3	2	0	4
WLD 1120	Oxyacetylene Welding & Cutting			5	0	15	10
				11	4	15	18
<b>WINTER QUARTER</b>							
ENG 1101	Reading Improvement			5	0	0	5
MAT 1101	Fundamentals of Mathematics			5	0	0	5
WLD 1121	Arc Welding			3	0	9	6
DFT 1117	Blueprint Reading: Advanced			2	2	0	3
WLD 1112	Mechanical Testing & Certification Practices			1	0	3	2
				16	2	12	21
<b>SPRING QUARTER</b>							
PSY 1101	Human Relations			3	0	0	3
WLD 1126	Advanced Arc Welding			2	0	15	7
WLD 1123	Inert Gas Welding			2	0	3	3
DFT 1118	Pattern Development & Sketching			2	0	3	3
				9	0	21	16
<b>SUMMER QUARTER</b>							
WLD 1124	Pipe Welding			4	0	12	8
WLD 1122	Commercial & Industrial Practices			3	0	6	5
MEC 1112	Machine Shop Processes			2	0	3	3
				9	0	21	16

## **COURSE DESCRIPTIONS VOCATIONAL DIPLOMA PROGRAMS**

The following section provides a brief description for each course listed in the previous section. Courses are listed alphabetically by prefix and arranged in ascending order by number (e.g., AUT 1121, AUT 1123, BUS 1103, DFT 1102, etc.).

Credit hours are based upon 50-minute periods and are earned in the following categories. One lecture period equals one credit hour; two lab periods equal one credit hour; three shop periods equal one credit hour.

### **AHR 1101 Automotive Air Conditioning**

3

General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system.

### **AHR 1121 Principles of Refrigeration**

7

An introduction to the principles of refrigeration, terminology, the use and care of tools and equipment, and the identification and the function of the component parts of a system. Other topics to be included will be the basic laws of refrigeration; characteristics and comparison of the various refrigerants; the use and construction of valves, fittings, and basic controls. Practical work includes tube bending, flaring and soldering. Standard procedures and safety measures are stressed in the use of special refrigeration service equipment and the handling of refrigerants.

### **AHR 1122 Domestic and Commercial Refrigeration**

7

Domestic refrigeration servicing of conventional, hermetic, and absorption systems. Cabinet care, controls, and system maintenance in domestic refrigeration, freezers, and window air conditioning units is stressed. Commercial refrigeration servicing of display cabinets, walk-in cooler and freezer units, and mobile refrigeration systems is studied. The use of manufacturers' catalogs in sizing and matching system components and a study of controls, refrigerants, servicing methods is made. The American Standard Safety Code for Refrigeration is studied and its principles practiced.

Prerequisite: AHR 1121.

### **AHR 1123 Principles of Air Conditioning**

6

Work includes the selection of various heating, cooling and ventilating systems, investigation and control of factors affecting air cleaning, movement, temperature, and humidity. Use is made of psychrometric charts in determining needs to produce optimum temperature and humidity control. Commercial air conditioning equipment is assembled and tested. Practical sizing and balancing of ductwork is performed as needed.

Prerequisite: AHR 1122.

**AHR 1124 Air Conditioning and Refrigeration Servicing**

5

Emphasis is placed on the installation, maintenance, and servicing of equipment used in the cleaning, changing, humidification and temperature control of air in an air conditioned space. Installation of various ducts and lines needed to connect various components is made. Shop work involves burner operation, controls, testing and adjusting of air conditioning and refrigeration equipment, and location and correction of equipment failure.

Prerequisite: AHR 1123.

**AHR 1124R Air Conditioning and Refrigeration Service**

8

Emphasis is placed upon the principles of air conditioning and refrigeration and trouble shooting of the mechanical and electrical problems involved. Components and systems controls are studied from the standpoint of installation, performance, and service. Test instruments are discussed and systems adjustments are stressed.

**AHR 1126 All Year Comfort Systems**

5

Auxiliary equipment used in conjunction with refrigeration systems to provide both heating and cooling for "all year" comfort will be studied and set up in the laboratory. Included will be oil fired systems, gas fired systems, water circulating systems, and electric-resistance systems. Installation of heat pumps will be studied along with servicing techniques. Reversing valves, special types of thermostatic expansion, valves, systems of de-icing coils, and electric wiring and controls are included in the study.

Prerequisites: AHR 1123, AHR 1128.

**AHR 1127 Intro. to Automatic Controls**

5

An introduction to various types of automatic, electric, and pneumatic controls utilized for domestic and commercial cooling and heating units. Primary emphasis on design and function.

**AHR 1128 Automatic Controls**

5

Major emphasis will be placed on the installation, repair, and servicing of types of automatic controls in air conditioning systems. Included in the course will be electric and pneumatic controls for domestic and commercial cooling and heating; zone controls, unit heater and ventilator controls, commercial fan systems controls, commercial refrigeration controls, and radiant panel controls.

Prerequisites: AHR 1122 and AHR 1127.

**AUT 1121 Automotive Braking Systems**

3

A complete study of various braking systems employed in automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment, and repair.

**AUT 1123 Automotive Chassis and Suspension Systems**

6

Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension, and steering systems. Units to be studied will be shock absorbers, springs, steering systems, steering linkage, and front end alignment.

**AUT 1124 Automotive Power Train Systems**

7

Principles and functions of automotive power train systems: clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair.

**BUS 1103 Small Business Operation**

3

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations.

**CAR 1101 Carpentry: Tools, Processes and  
Introduction to Framing**

11

A brief history of carpentry and present trends of the construction industry. The course will involve operation, care, and safe use of carpenters' hand tools and power tools in cutting, shaping and joining construction materials used by the carpenter. Major topics of study will include theoretical and practical applications involving materials and methods of construction, building layout, preparation of site, footings and foundation wall construction, including form construction and erection.

**CAR 1102 Carpentry: Framing**

7

Instruction is given in the principles and practices of frame construction beginning with the foundation sills and including: floor joist, subfloor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing and interior wall partition. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of the mechanical equipment such as: electrical, air conditioning, heating, and plumbing.

**CAR 1103 Carpentry: Finishing**

9

Exterior and interior trim and finish carpentry will complete the general carpentry program. Included will be materials and methods used in finishing carpentry such as: exterior cornice, door and window trim; interior flooring, door and window facing, moldings, cornice construction, installation of hardware, and installation of built-in equipment and cabinets.

**CAR 1104 Carpentry: Cabinetmaking**

7

Cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment will be emphasized in learning methods of construction of millwork and cabinetry. Practical applications will include measuring, layout and construction of: base and wall cabinets, built-in desk, door and window frames, stairs, and interior and exterior cornice and trim. Materials and finishes will also be studied.

**CAR 1114 Building Codes**

3

A study is made of building codes and the minimum requirements for local, county, and state construction regulations. This involves safety, sanitation, mechanical equipment, and materials. Also, a review will be made of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code.

**CIV 1101 Introduction to Surveying**

3

An introduction to the surveying instruments utilized in laying out construction sites. Emphasis will be placed on practical exercises and field trips to actual construction sites.

**COS 1101 Introduction to Cosmetology**

9

This course is designed to introduce the students to the various aspects of cosmetology. In addition to receiving the basics of hair styling, hair shaping, bacteriology, sterilization, and the anatomy of the hair, the student will study the basic chemistry of shampoos, rinses, scalp and hair conditioners, and cold wave to include the proper use and application of each. Professional ethics and the development of personality will also be stressed.

**COS 1102 Mannequin Practice**

10

This course is designed to provide through practical work, a firm foundation in the basic skills involved in hair shaping (razor method), hair styling, permanent waving, manicuring, shampoos, and scalp treatment. Demonstrations will be provided by the faculty with an immediate practical response by the student.

**COS 1103 Theory of Cosmetology**

9

This course is designed to provide the student with a basic theory concerning hair coloring, manicuring, and thermal waving. Additionally, the anatomy and chemistry of hair coloring, and the use and care of pressing combs and thermal irons will be stressed, along with the theory of massage and light therapy. The diseases and disorders of the skin, scalp, hair, and nails will be covered.

**COS 1104 Cosmetology Skills**

10

This course is a continuation and application of practical skills learned in Cos 1102. The student will now be permitted to practice on live models as well as mannequins. All previously learned skills will be utilized and additional skills will be taught to include hair shaping by the scissor method, hair coloring, lash and brow tinting, wig care, hair pieces, and facials. Students will be introduced to more complicated hair styles.

Prerequisite: COS 1102 \*

**COS 1105 Theory of Cosmetology**

9

This course is designed to expand the theory covered in COS 1103, to include detailed instructions in those parts of anatomy which pertain to cosmetology. The skeletal, muscular, nervous, and circulatory systems will be stressed. Additional instruction in facial treatment, facial make-up, and chemistry of facial cosmetics will be covered.

Prerequisite: COS 1103.

**COS 1106 Cosmetology Skills**

10

This course is a continuation of the practical applications of skills applied in COS 1104. During this course, the students will work less with mannequins and more on live models. Additional skills to be practiced will be long hair styles, hot oil manicures, facial make-ups, special hair cuts, special effects to be achieved with hair coloring, and air oxidation method of permanent waving.

Prerequisite: COS 1104.

**COS 1107 Salon Management**

9

This course is primarily designed to introduce the student to the many areas and responsibilities that are involved in the management of the cosmetology salon. Field trips will be scheduled into the surrounding communities in order that students may study the arrangement and operation of actual beauty salons. Additionally, they will study the tax structures, business aspects, and laws governing cosmetology as set forth by the legislature, North Carolina State Board of Cosmetic Art Examiners, and the North Carolina State Board of Health.

**COS 1108 Advanced Hairdressing**

10

This course is designed to allow the students to demonstrate, under supervision of the instructor, all cosmetology skills which will enable them to be effective cosmetologists upon entering the world of work. Additionally, there will be special classes and demonstrations which will cover the new trends in hair styles as they are released and any new procedure or product that enters the cosmetology market before graduation.

Prerequisite: COS 1106.

**COS 1199 Cosmetology for Graduates**

4

This course is designed for the student who wishes to complete additional hours in cosmetology under supervision in order that she may be able to meet the qualifications required by the State Board, or State Boards of Cosmetic Art in other states which exceed those in North Carolina. These students will be allowed to attend any course and participate in practical projects which she feels will be most beneficial in her future practice of Cosmetology.

Prerequisite: Graduate of one-year program.

**DFT 1101 Schematics and Diagrams (Electrical Measurements, and Tools)**

4

Interpretation and reading of blueprints, sketches and drawings. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and diagrams of engines and tools to include measurements in volume. Information on the basic principles of lines, views, dimensioning procedures, and notes.

**DFT 1102 Schematics and Diagrams (Electrical and Fuel Systems)**

4

Interpretation and reading of blueprints, sketches, and drawings. Development of ability to read, interpret, and understand blueprints, charts, instructions, and service manuals pertaining to automotive, electrical, and fuel systems. Views, dimensioning, and procedures will be stressed.

**DFT 1104 Blueprint Reading: Mechanical**

4

Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures and notes.

**DFT 1105 Blueprint Reading: Mechanical**

4

Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes.

Prerequisite: DFT 1104.

**DFT 1110 Blueprint Reading: Building Trades**

4

Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three-view and pictorial sketches.

**DFT 1111 Blueprint Reading and Sketching**

4

Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, floor plans, elevations, walls, doors and windows, and roofs of buildings. Development of proficiency in making three-view and pictorial sketches.

**DFT 1113 Blueprint Reading: Electrical**

4

Interpretation of schematics, diagrams, and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes will be a part of this course.

Prerequisite: DFT 1104.

**DFT 1116 Blueprint Reading: Air Conditioning**

3

A specialized course in drafting for the heating, air conditioning and refrigeration student. Emphasis will be placed on reading of blueprints that are common to the trade: blueprints of mechanical components, assembly drawings, wiring diagrams and schematics, floor plans, heating system plans including duct and

equipment layout plans, and shop sketches. The student will make tracings of floor plans and lay out air conditioning systems.

**DFT 1117 Blueprint Reading & Pattern Development**

3

A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations, and specifications.

**DFT 1118 Pattern Development & Sketching**

3

A study of the development of patterns which assist welders in preparing joints of all types. Students will prepare sketches from which cuts and joinings will be made. Emphasis will be placed on rectangular and cylindrical layouts.

**ELC 1112 Direct and Alternating Current**

9

A study of the electrical structure of matter and electron theory, the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. An analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. A study of the sources of direct current flow, reactance, impedance, phase angle, power, and resonance. Analysis of alternating current circuits.

**ELC 1112R Direct and Alternating Current**

12

A study of the structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Analysis of direct current circuits by Ohm's law and Kirchhoff's law; sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance and alternating current circuit analysis.

**ELC 1113 Direct and Alternating Current:  
Motors and Controls**

9

Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction in the use of electrical test instruments in circuit analysis. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances such as: thermostats, times, or sequencing switches.

Prerequisites: ELC 1112, MAT 1115.

**ELC 1113A Introduction to Electric Motors and  
Controls**

3

Provides fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors.

**ELC 1113B Electric Motors and Controls**

4

Instruction in the use of electrical test instruments in circuit analysis of electric motors. The basic concepts of AC and DC machines and simple system controls. An introduction to the type control used in small appliances such as: thermostats, times, or sequencing switches.

**ELC 1124 Residential Wiring** 10

Provides instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as: services, switchboards, lighting, fusing, wire sizes, branch circuits, conduits, National Electrical Code regulations in actual building mock-ups.

**ELC 1125 Commercial and Industrial Wiring** 15

Layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Code, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems.

Prerequisite: ELC 1113.

**ELN 1122 Vacuum Tubes and Electronic Circuits** 9

An introduction to vacuum tubes and their development; the theory, characteristics and operation of vacuum diodes, semi-conductor diodes, rectifier circuits, filter circuits, triodes and simple voltage amplifier circuits.

Prerequisites: ELC 1112, MAT 1115.

**ELN 1123 Amplifier Systems** 4

An introduction of commonly used servicing techniques as applied to monophonic and stereophonic high fidelity amplifier systems and auxiliary equipment. The operation and servicing of intercommunication amplifiers and switching circuits will also be taught.

Prerequisites: MAT 1115, ELC 1112.

**ELN 1125 Radio Receiver Servicing** 6

Principles of radio reception and practices of servicing; included are block diagrams of radio receivers, servicing techniques of AM and FM receivers by resistance measurements, signal injection, voltage analysis, oscilloscope methods of locating faulty stages and components and the alignment of AM and FM receivers.

Prerequisites: ELN 1123, ELN 1122.

**ELN 1126 Transistor Theory & Electronic Circuits** 6

Transistor theory, operation, characteristics and their application to audio and radio frequency amplifier and oscillator circuits.

Prerequisite: ELN 1123.

**ELN 1127 Television Receiver Circuits & Servicing** 15

A study of principles of television receivers, alignment of radio and intermediate frequency amplifiers, adjustment of horizontal and vertical sweep circuits will be taught. Techniques of troubleshooting and repair of TV receivers with the proper use of associated test equipment will be stressed. Additional study of more specialized servicing techniques and oscilloscope waveform analysis will be used in the adjustment, troubleshooting, and repair of the color television circuits.

Prerequisites: ELN 1126, ELN 1125.

**ENG 1101 Reading Improvement** 5

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units.

**ENG 1102 Communications Skills**

3

Designed to promote effective communication through correct language usage in speaking and writing.

**ISC 1101 Industrial Safety**

3

A study of the overall picture of the accident toll for the nation's population. It is designed to establish safe work habits in performing the occupation. Principles of accident prevention; injury sources and causes; accident costs; job safety analysis; accident investigation; methods of promoting safe practice, safety education and training; first aid, lifting — manually and mechanically; and fire prevention and protection are some of the topics discussed.

**MAS 1101 Bricklaying**

11

The history of the bricklaying industry. Clay and shell brick, mortar, laying foundations, laying bricks to a line, bonding, and tools and their uses. Laboratory work will provide training in the basic manipulative skills.

**MAS 1102 Bricklaying**

7

Designed to give the student practice in selecting the proper mortars, layout, and construction of various building elements such as foundations, walls, chimneys, arches and cavity walls. The proper use of bonds, expansion strips, walls, ties, and caulking methods are stressed.

**MAS 1103 General Masonry**

12

Layout and erection of reinforced grouted brick masonry lintels, fireplaces, glazed tile, panels, decorative stone, granite, marble, adhesive terra cotta, and modular masonry construction theory and techniques.

**MAS 1104 General Masonry**

10

Major emphasis will be placed upon speed and accuracy utilizing the practices and principles learned in MAS 1101, MAS 1102, and MAS 1103.

**MAT 1101 Fundamentals of Mathematics**

5

Practical number theory. Analysis of basic operations: addition, subtraction, multiplication, and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth.

**MAT 1105 Mathematics for Nurses**

5

Study and practice of basic arithmetic procedures, common and decimal fractions, percentages, ratio and proportion, Roman numerals, metric and apothecaries systems of weights and measures, Fahrenheit and centigrade scales, solution and dosages.

**MAT 1112 Building Trade Mathematics**

5

Practical problems dealing with volumes, weights, ratios, mensuration, and basic estimating practices for building materials.

**MAT 1113 Building Trades Mathematics**

5

Practical problems dealing with volumes, weights, ratios, mensuration, and basic estimating practices for building materials.

**MAT 1115 Electrical Mathematics**

5

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations, use of letters and signs, grouping, factoring, exponents, ratios, and proportions; solution of equations, algebraically and graphically; a study of logarithms and use of tables; an introduction to trigonometric functions and their application to right angles; and a study of vectors for use in alternating current.

**MAT 1116 Electrical Mathematics**

5

A working knowledge of the powers of 10, Ohm's Law for series and parallel circuits, quadratic equations, Kirchhoff's Law, trigonometric functions, plane vectors, alternating currents, vector algebra and logarithms.

Prerequisite: MAT 1115.

**MAT 1123 Machinist Mathematics**

4

Introduces gear ratio, lead screw and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems; concludes with an introduction to compound angle problems.

Prerequisite: MAT 1101.

**MEC 1101 Machine Shop Theory and Practice**

7

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments. Elementary layout procedures and processes of lathe, drill press, grinding (off-hand) and milling machines will be introduced both in theory and practice.

**MEC 1101R Machine Shop Theory and Practice**

6

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care and use of basic hand tools and precision measuring instruments. Elementary layout procedures and processes of lathe, drill press, grinding (off-hand) and milling machines will be introduced both in theory and practice.

**MEC 1102 Machine Shop Theory and Practice**

7

Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, milling machine shaper. The student will be introduced to the basic operations on the cylindrical grinder and will select projects encompassing all the operations, tools and procedures thus far used and those to be stressed throughout the course.

Prerequisite: MEC 1101.

**MEC 1103 Machine Shop Theory and Practice**

9

Advanced work on the engine lathe, turning, boring and threading machines, grinders, milling machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting and measuring of spur, helical, and worm gears and wheels. The trainee will use precision tools and measuring instruments such as vernier height gauges, protractors, comparators, etc. Basic exercises will be given on the turret lathe and on the tool and cutter grinder.

Prerequisites: MEC 1102.

**MEC 1104 Machine Shop Theory and Practice**

7

Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspection. Additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Special procedures and operations, processes and equipment, observing safety procedures faithfully and establishing good work habits and attitudes acceptable to the industry.

Prerequisites: MEC 1103.

**MEC 1112 Machine Shop Processes**

3

To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the basic fundamentals of drill press and lathe operation; hand grinding of drill bits and lathe tools; set-up work applied to the trade.

**MEC 1115 Treatment of Ferrous Metals**

3

Investigates the properties of ferrous metals and tests to determine their uses. Instructions will include some chemical metallurgy to provide a background for the understanding of the physical changes and causes of these changes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron will be topics for study.

**MEC 1116 Treatment of Non-Ferrous Metals**

3

Continuation of the study of physical metallurgy. The non-ferrous metals: bearing metals, (brass, bronze, lead), light metals (aluminum and magnesium), and copper and its alloys are studied. Powder metallurgy, titanium, zirconium, indium and vanadium are included in this course.

Prerequisite: MEC 1115.

**MEC 1120 Duct Construction and Maintenance**

5

Study of various duct materials including sheet steel, aluminum, and fiber glass. Safety, sheet metal hand tools, cutting and shaping machines, fasteners and fabrication practices, layout methods, and development of duct systems. The student will service various duct systems and perform on-the-site repairs including duct made of fiber glass. A study is made of duct fittings, dampers and regulators, diffusers, heater and air washers, fans, insulation and ventilating hoods. Prerequisites: DFT 1116, AHR 1123.

**MEC 1133 Mechanical Maintenance**

7

To acquaint the student with the basic fundamentals of installation, maintenance, and repair of machines. Miscellaneous electrical, mechanical, hydraulic, pneumatic, and lubrication devices are installed and maintained. Methods of rigging and machine installation, including location, leveling, and fastening are covered. The use of precision measuring tools and checking for accuracy, squareness, and correct center line distances are stressed for pre-start inspection.

Prerequisite: MEC 1101, DFT 1104, DFT 1113.

**NUR 1101 Fundamentals of Practical Nursing**

8

Designed to teach the practical nursing students the principles involved in good nursing care and an understanding of her profession through the study of the

history of nursing, role of the practical nurse in the hospital, relationship to the patient's environment, and the responsibilities of patient hygiene, and adequate reporting and recording.

**NUR 1102 Body Structure & Function** 6

An introduction to disease producing organisms and a study of the structures and functions of the skeletal, muscular, and internal systems of the human body and their interrelationships in a well-integrated unit.

**NUR 1105 Nutrition** 3

A study of the basic principles of nutrition and meal planning, and the mechanics of nutrient utilization with consideration of religious, cultural, and psychological factors.

**NUR 1107 Medical Surgical Nursing I** 13

Course of study and practice which prepares the student to deal with chronically and critically ill patients, including the aged, with a general medical or surgical problem and with their rehabilitation through diet, drugs, and nursing care. Also prepares the student for emergency situations in the institution, home, or community.

Prerequisite: NUR 1101, NUR 1102.

**NUR 1108 Obstetric-Pediatric Nursing** 14

The study and practice of nursing care of the pregnant woman, newborn infant, and pediatric patients, including the reproductive cycles, abnormal and normal progress of pregnancy, labor and delivery, care of the newborn, growth and development and abnormal conditions of the child, and the effects of hospitalization.

Prerequisite: NUR 1110.

**NUR 1110 Medical Surgical Nursing II** 13

The study and practice of the care of specific medical and surgical problems and psychosomatic illnesses with increased emphasis on emotional needs, diet therapy, and observation and recording of the effects of drugs.

Prerequisite: NUR 1107.

**NUR 1111 Drug Administration** 2

A study of drugs, their dangers, safe and intelligent administering of drugs, and laws regarding their use and control.

Prerequisite: MAT 1105.

**NUR 1114 Family Units** 3

A study of family development; emphasizing it as a unit of interacting members, interacting with each other and the community, and of the effects of illness of a member of that unit and their care within the home.

**NUR 1116 Vocational Adjustment** 2

Study of ethics and procedures for obtaining, holding, and resigning employment; the legal aspects of nursing; and her responsibility to herself, her profession, her patient, and employer.

**NUR 1120 Nursing Skills Seminar**

2

A controlled discussion group course to review experiences and learning situations occurring in day-to-day clinical activities involving obstetrics, pediatric, or medical-surgical nursing. Individual problem solving of actual cases will be stressed.

**PHY 1101 Applied Science**

4

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids, and gases; basic electrical principles.

**PHY 1102 Applied Science**

4

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry, and principles of force, motion, work, energy, and power.

Prerequisite: PHY 1101.

**PLU 1110 Plumbing — Pipe Work**

6

An introductory course designed to provide the student with fundamental procedures and practice in plumbing and pipe work. Emphasis will be placed on repair and maintenance of existing facilities and planning for new installations.

**PME 1101 Internal Combustion Engines**

10

Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing.

**PME 1102 Engine Electrical and Fuel Systems**

7

A thorough study of the electrical and fuel systems of the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system.

**PSY 1101 Human Relations**

3

A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.

**WLD 1101 Basic Welding**

3

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work.

**WLD 1103 Basic Gas Welding**

1

Welding demonstrations by the instructor and practice by the students in the air conditioning shop, utilizing oxyacetylene equipment only. Safe and correct

methods of assembling and operating portable welding equipment. Practice will be given in surface and bronze welding, silver soldering and flamecutting applicable to air conditioning repair work.

**WLD 1104 Basic Welding and Cutting**

6

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding; bronze welding, silver soldering, arc and gas-arc welding methods applicable to mechanical repair work.

**WLD 1112 Mechanical Testing & Certification Practices**

2

The standard methods for mechanical testing of welds. The student is introduced to the various types of tests and testing procedures and performs the details of the test which will give adequate information as to the quality of the weld. Types of tests to be covered are: bend, destructive, free-bend, guided-bend, nick-tear, notched-bend, tee-bend, nondestructive, V-notch, charpy impact, etc. Also involves practice in welding the various materials to meet certification standards. The student uses various tests including the guided bend and the tensile strength tests to check the quality of his work. Emphasis is placed on attaining skill in producing quality welds.

**WLD 1120 Oxacetylene Welding and Cutting**

10

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, hard and soft soldering. Safety procedures are stressed throughout the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.

**WLD 1121 Arc Welding**

6

The operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment.

**WLD 1122 Commercial and Industrial Practices**

5

Designed to build skills through practices in simulated industrial processes and techniques: sketching and laying out on paper the size and shape description, listing the procedure steps necessary to build the product, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding and nondestructive tests and inspection.

**WLD 1123 Inert Gas Welding**

3

Introduction and practical operations in the use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety and practice in the

various positions. A thorough study of such topics as: Principles of operation, shielding gases, filer rods, process variations and applications, manual and automatic welding.

**WLD 1124 Pipe Welding**

8

Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code.

**WLD 1126 Advanced Arc Welding**

7

A continuation of good arc welding practices as covered in WLD 1121. Emphasis will be placed on accuracy and speed in all welding positions. All welds will be tested for strength. Safety procedures are emphasized throughout the course in the use of tools and equipment.



# CERTIFICATE PROGRAMS



# DEVELOPMENTAL STUDIES

## INTRODUCTION

The need often exists to provide specialized or directed studies for students having academic deficiencies which prevent them from entering regular curriculum programs. These weaknesses usually exist in the areas of mathematics, English, or science.

## PURPOSE

The Developmental Studies curriculum is designed to provide developmental instruction in mathematics, English, and science appropriate to the level at which the student enters the program. Additionally, the curriculum provides an opportunity for the student to audit other curriculum programs in which he may be interested in order that he can determine interest in and aptitudes for those programs.

Further, the curriculum provides instruction in study habits, reading, social science, and vocational selection.

In cases where the student cannot attain a level of academic proficiency to enter regular curriculum programs, he will be counseled and every effort will be made to assist him in finding employment.

## DEVELOPMENTAL STUDIES

		Hours Per Week	Quarter Hours
		Class	Lab
<b>FALL QUARTER</b>			
ENG 001	Communicative Skills (Oral)	1	4
MAT 001	General Mathematics	3	2
MET 001	Methods of Study (SQ3R)	3	2
	Elective Audit	7	8
<b>WINTER QUARTER</b>			
ENG 002	Reading Improvement	3	2
MAT 002	General Business Mathematics	3	0
VOC 001	Vocational Selection	2	0
ENG 003	Language Arts (Grammar)	3	2
	Elective Audit	11	4
<b>SPRING QUARTER</b>			
PSY 001	Psychology and Problem Solving	3	2
SCC 001	Comparative Government	5	0
ENG 004	Composition	3	2
SCI 001	General Science	3	2
	Elective Audit	14	6

## COURSE DESCRIPTIONS

## DEVELOPMENTAL STUDIES

The following section provides a brief description for each course listed in the previous section. Courses are listed alphabetically by prefix and arranged in ascending order by number.

The numbers given on the right side of the page (3 2 4) indicate the following: First number gives the hours per week of lecture, second number gives

**ENG 001 Communicative Skills (Oral)**                                    1      4      3

Designed to familiarize students with the current practices in the preparation and delivery of speeches. Considering briefly techniques of group discussion to develop and broaden the vocabulary of the student, deepen the understanding of the English language, and provide a basis for transfer of this knowledge into increased reading speed, comprehension, and writing ability. Includes dictionary skills, word attack, phonics, occupationally oriented terminology, spelling, and intensive vocabulary drill. Emphasis on rhetoric.

**ENG 002 Reading Improvement**                                    3      2      4

Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition. Emphasis placed on comprehension, vocabulary expansion, and the ability to locate information. Continue to demonstrate the value of oral communication.

**ENG 003 Language Arts (Grammar)**                            3      2      4

Designed to expand skills in reading, writing, listening, and speaking. Emphasis on grammar, diction, sentence structure, punctuation, and spelling.

**ENG 004 Composition**    3      2      4

A study of the essentials of composition and rhetoric; consequently, the written work is emphasized. Self-expression in grammar through paragraph formation applied to situations in industry, business, and vocational skills.

**MAT 001 General Mathematics**                                    3      2      4

Designed primarily for the non-specializing student. Devoted primarily to improving comprehension, speed, and accuracy in dealing with the basic operation of the number system. Will include a review of the kinds of numbers, multiplication, addition, subtraction, and division. Trade oriented problem solving will be stressed.

**MAT 002 General Business Mathematics**                            3      0      3

Techniques and practice in the solution of common mathematical problems encountered in the ordinary operations of the business enterprise and various other organizations.

**MET 001 Methods of Study (SQ3R)**                            3      2      4

Designed to develop an understanding for the need for study and good study habits. Presents an uncomplicated but effective method of study equally applicable to vocational and technical programs. Emphasis to be placed on outlines, note taking, library uses, and research oriented to individual interest areas.

**PSY 001 Psychology and Problem Solving**                            3      2      4

A study of human problems involved in communications, individual needs and behavior, motivation, cooperation and productivity. Through case analysis and reading, the student develops an appreciation of what constitutes a proper evaluation of human behavior.

**SCC 001 Comparative Government**                                    5        0        5

A survey of the elements and relationships of local, state, and national governments, with particular emphasis of government on the local level showing comparisons of types of local governments (county-city), and problems that are unique to each.

**SCI 001 General Science**                                    3        2        4

An introductory course designed to give the student a better foundation for Applied Science appropriate to both technical and vocational curricula. It will include time, celestial body, space, with emphasis upon practical and historical geology.

**VOC 001 Vocational Selection**                            2        0        2

Designed to assist the student in the identification and selection of a vocational or technical field in which the student should be able to succeed. Emphasis on training, application, testing, interviewing, and job selection. Discussion of types of jobs, personal traits, attitudes, desires, and information sources in securing jobs.

## **INDUSTRIAL SEWING**

### **INTRODUCTION**

Rapid growth of the textile and related industries in the Southeast has created an even greater demand for skilled operators of industrial sewing machines. With this growth and the rising costs of production, management desires that employees reach maximum effectiveness as soon as possible after going on the job.

### **PURPOSE**

The purpose of this curriculum is to provide a five-week skill training course in the operation of industrial sewing machines to enable the student to meet the entry level requirements of the textile industries. This training will be enhanced by cooperative work experience in the industrial environment and human relations training in the classroom.

## **INDUSTRIAL SEWING**

		<i>Hours Per Week</i>		<i>Quarter Hours Credit</i>
		<i>Class</i>	<i>Lab</i>	
<b>FIVE WEEKS</b>				
TEX 1101	Operation, Care and Cleaning of Power Sewing Machines	0	10	1
TEX 1102	Basic Sewing	25	90	6
PSY 1101A	Human Relations	25	0	2
*ENG 1101A	Reading Improvement	25	0	2
		75	100	11

\*OPTIONAL—Reading tests will be administered to determine reading level. Students scoring above minimum reading level may choose to continue hours on Basic Sewing.

## COURSE DESCRIPTIONS INDUSTRIAL SEWING

**\*ENG 1101A Reading Improvement** 25 0 2

Entrance into this course will be determined by reading evaluation test. Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units.

**PSY 1101A Human Relations** 25 0 2

A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.

**TEX 1101 Operation, Care and Cleaning of Power Sewing Machines** 0 10 1

An introductory course designed to teach the student the nomenclature, operating principles, care, and cleaning of the equipment on which he is to be trained. Emphasis will be placed on safety during operations.

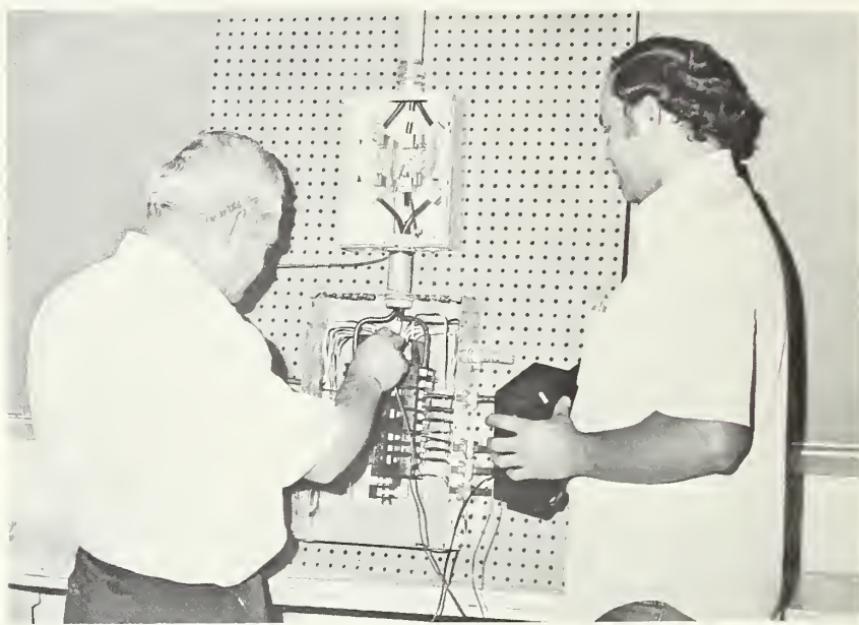
**TEX 1102 Basic Sewing** 25 90 6

This course is designed to introduce the student to the basic sewing operations and provide timed skill practice. Emphasis will be placed on special operations used by local industry. Safety will be stressed.

**\*OPTIONAL:** Reading tests will be administered to determine reading level. Students scoring above minimum reading level may choose to continue hours on Basic Sewing.



# CONTINUING EDUCATION PROGRAMS



## **GENERAL INFORMATION**

### **Academic Credit**

In the adult-extension program, the Continuing Education Unit may be awarded on an individual basis. One CEU value is awarded for ten contact hours of classroom work. Credit is given in the Adult High School Diploma Program. Certificates may be awarded students who successfully complete certain vocational-extension programs.

### **Attendance**

Students are encouraged to attend all classes. In order for a student to be presented an Attendance Certificate, he must attend at least 80 percent of the classes as well as successfully complete the course.

### **Cancellation**

Robeson Technical Institute reserves the right to cancel any course which has insufficient enrollment.

### **Admission**

The open door policy is observed regarding requirements for admission to continuing education classes. Any person who is a high school graduate or at least eighteen years of age and not currently attending a public school is eligible to enroll.

### **Insurance**

An accident insurance policy is available to all students registered in the continuing education program. The policy offers protection for the student en route to class, during class, and en route home.

### **New Classes**

Any class may be started if 12 or more persons are interested and a qualified instructor can be employed.

### **Registration**

Registration for all adult-extension courses will be completed during the first class session in the classroom assigned for the course. Registration for evening (credit) curriculum courses will be held in September, December, and March in the Student Services office. Every student must have his social security number.

## **TUITION AND FEES**

A \$2.00 registration fee is charged for all continuing education courses. A \$16.00 registration fee is charged for Driver Education.

## **ADDITIONAL INFORMATION**

Additional information about adult-extension classes may be obtained from the office of Continuing Education at R.T.I. by calling 738-7101.

## **COMMUNITY SERVICES**

Robeson Technical Institute sponsors and promotes a number of community services. These services contribute to the cultural, economic, and civic development of the community. The Institute may also be host to a number of local, state, and national groups that will conduct seminars and conferences on campus. Lodging, restaurants, and other facilities are located nearby for the out-of-town conferee. Representative community service offerings at the Institute include seminars and conferences, creative arts festivals and exhibitions, musical programs, and a speakers' bureau.

## **GENERAL ADULT EDUCATION**

### **ADULT BASIC EDUCATION**

Adult Basic Education is a program designed to help adults improve their basic skills in reading, writing, speaking, arithmetic, science, and social studies. Classes meet two nights per week for four hours per night.

Classes are organized whenever and wherever there is a justifiable demand for them. Classes in the past have been conducted at Robeson Technical Institute, Fairgrove High School, Lumberton Jr. High School, Pembroke Jr. High, Proctorville Elementary School, Southside School, Saint Pauls Elementary School, Purvis Elementary School, Union Elementary School, R.B. Dean School, Rex-Rennert School, Red Springs Jr. High, Rosenwald School, Marietta School, Oxendine Elementary School, Deep Branch Elementary School, Allenton Elementary School, and Ashpole School.

Classes are organized in the following levels:

Level One: Nonreaders through grade three; basic reading, writing, arithmetic.

Level Two: Grade four through grade six; reading improvement, English expression, arithmetic, geography, and social studies.

Level Three: Grade seven through grade eight; reading improvement, English expression, social studies, mathematics, science.

A \$2.00 registration fee is required and textbooks are provided free by the Institute. All instructional materials used have been prepared with emphasis on individual needs and interests.

No degree certificate is awarded; however, for the successful completion of a year of study in the Adult Basic Education program, the student is awarded an Achievement Certificate.

### **Adult High School Program**

The Adult High School Program provides a student the opportunity to earn the Adult High School Diploma. Before receiving the Adult High School

Diploma, an adult must demonstrate proficiency in reading, English expression, mathematics, science, and social studies, as measured by a battery of standardized tests administered by Robeson Technical Institute.

Transcripts of high school records are required of those students enrolled in the Adult High School classes who have previously attended high school. Copies of these transcripts should be forwarded to the Director of Basic Education, Robeson Technical Institute.

A \$2.00 registration fee is required, and books are provided by the Institute. A fee is charged upon graduation for the diploma, cap and gown, and for transcript service. Classes meet two nights a week for four hours in the local communities where there is a sufficient number of interested adults.

An Adult High School Diploma is awarded a student when test scores indicate that the required achievement level has been attained. The diploma is awarded locally by the appropriate Board of Education. The Adult Diploma program is approved by the State Board of Education and meets the requirements for entrance to four-year colleges and other institutions of higher learning.

### **High School Equivalency (GED)**

Another program for the adult who has not completed high school is the High School Equivalency program. Under the plan, individuals may take a series of tests called the General Educational Development tests (GED). Those receiving an acceptable passing score of 225 points with no single test score below 35 and a combined average of 45 will be awarded a High School Equivalency Certificate. This certificate is generally accepted on a basis equal to a high school diploma for employment, promotion, or further education.

The GED test covers five broad areas: English Expression, Literature, Mathematics, Social Studies and Natural Science, and are administered at the Institute.

The following requirements must be met before taking the GED test: (1) minimum age, 18, and out of school for six months; (2) is a resident of the State (a resident is defined as a person currently residing in the state, including assignment to a military base in the state); (3) file application on a special form, which is available in the office of Superintendent of Schools or at Robeson Technical Institute; (4) application endorsed and approved by the Superintendent of Schools or by the appointed R.T.I. staff member; (5) have a valid vocational, education, or other purpose in applying.

The Institute, through the Learning Laboratory or Adult High School classes, offers the individual the opportunity to prepare for the GED test.

Requests for application forms, test dates, and other information should be directed to the Director of Basic Education at Robeson Technical Institute.

### **Learning Laboratory**

The Learning Laboratory is an approach to education with the use of commercially and locally designed programmed instructional materials, self-instructional units, and teaching machines. It is essentially an individual study situation, whereby a person's progress is limited primarily by his own ambition, motivation, and ability.

Any person eighteen years of age or older and out of the public schools for at least six months can enroll in the Learning Lab for any of several

purposes: (1) to prepare for the high school equivalence examinations (GED); (2) to pursue the Adult High School Diploma; (3) to reduce specific educational weaknesses; (4) to upgrade for job promotion; (5) for personal satisfaction; or (6) to make up admissions deficiencies for a technical institute or college. The Lab can also be used by regular R.T.I. curriculum students to supplement their regular course work when they feel help beyond the classroom is needed.

The coordinator serves as the facilitator in the learning process. Because he is trained in programmed and self-instructional techniques, he is capable of making educational decisions and directing students through their assignments. The coordinator interviews, counsels and tests the prospective enrollee. Merits and weaknesses are noted in the student's area of interest, after which an individual curriculum is designed especially for that student. The student begins study at his predetermined educational level and advances through the materials at his own rate of speed.

The Learning Lab is approved by the Veterans Administration. Studies toward high school completion do not count against training eligibility beyond high school.

The Learning Lab is open from 8:00 a.m. until 10:00 p.m. Monday through Thursday, and 8:00 a.m. until 5:00 p.m. Friday. There are no charges for the services of the Learning Laboratory.

Rings can be ordered through the Student Services office for those who complete the Adult High School Diploma program. These students participate in the high school graduation ceremonies held in August of each year.

## LEARNING LABORATORY AREAS OF PROGRAMMED STUDY

### READING AND LANGUAGE

Reading Instruction at all levels  
Vocabulary Development  
Grammar  
Composition  
Punctuation  
Capitalization  
Business Letter Writing  
Spelling  
Sentence Patterns  
American Literature  
English Literature  
Composition

### SOCIAL STUDIES

United State Geography  
United State History  
World History  
American Government  
How a Bill Becomes a Law  
Economics  
The Constitution

### SCIENCE

General Science  
Geology  
Biology  
Chemistry  
Physics  
Vectors  
Mechanics  
Engines

### MATHEMATICS

Basic Arithmetic  
General Mathematics  
Modern Mathematics  
Algebra I  
Algebra II  
Trigonometry  
Calculus  
Consumer Mathematics

**PSYCHOLOGY**

Logic  
General Psychology  
Analysis of Behavior  
Statistics for Introductory Psychology  
Basic Sociological Concepts  
Physiological Psychology

**BUSINESS**

Understanding Stocks  
Economics  
Stenoscript: ABC Shorthand  
Basic Income Tax  
Insurance  
Investments  
Business Mathematics  
Beginning Bookkeeping  
The Accounting Process

**TECHNICAL**

Jobs  
Circuits Symbols  
Mixing Mortar  
Basic Electricity  
Basic Electronics  
Auto Mechanics

**FOREIGN LANGUAGE**

French  
Spanish  
German

**MISCELLANEOUS**

The Elements of Bridge  
The Game of Chess  
Interior Decoration  
Musical Notation  
Drug Use and Abuse  
Religious Education

**ADULT ENRICHMENT EDUCATION**

Enrichment education courses are designed to provide educational opportunities for adults for cultural enrichment, self-fulfillment, personal satisfaction, and other general interests.

Any adult 18 years of age or older who can profit from instruction may enroll. Persons may enroll in either day or evening classes and may enroll in classes on campus, at one of the adult mini centers, or at other specified areas in the county.

**ART, ADVANCED ART 2018** 30 Hrs.

A course for the more advanced students of painting. Art, Intermediate is a prerequisite or the equivalent level of knowledge is required. The student will work with different media. Individual assistance will be given on problems of composition—realistic, abstract, and nonobjective—to encourage individual expression. 3.0 CEU

**ART, BEGINNING ART 2006** 30 Hrs.

A course for beginning art students, including the fundamentals of drawing and painting and the different media used. Color theory and composition will be emphasized. Selection, care, and use of supplies and equipment will be taught. 3.0 CEU

**ART, INTERMEDIATE ART 2010** 30 Hrs.

A continuation of Art, Beginning. It is designed for those students not yet ready for Art, Advanced. Emphasis is placed on color and composition. Painting with a palette knife and abstract painting is taught. 3.0 CEU

**ART, PORTRAITS ART 2015**

30 Hrs.

A course for the advanced student of art who has completed Art, Advanced or its equivalent. Emphasis will be on skin tones, anatomical shape and structure, and the use of different media for both photographs and live models. 3.0 CEU

**BIBLE REL 2001**

30 Hrs.

A course designed to be both broad and specific in nature. Student preference and request determine the nature of the course. This course can be a broad look at the Old Testament or the New Testament. It may follow the Sunday School lessons or it may concentrate on one book, one prophet, or one era. The student may contact R.T.I prior to registration to obtain information on the specific nature of each course. 3.0 CEU

**CAKE DECORATION, ADVANCED HEC 3203**

30 Hrs.

A course for the more advanced students of cake decoration. Cake Decoration, Beginning is a prerequisite. Knowledge and use of decorating equipment is presumed. Instruction will center around the more difficult forms of cake decoration. Decoration of cakes for all occasions will be taught. 3.0 CEU

**CAKE DECORATION, BEGINNING HEC 3203**

30 Hrs.

A course emphasizing decorating equipment and its use. Students will learn pressure control of decorating utensils, the art of forming decorative flowers and forms, and the art of writing on cakes. Instruction will be provided for decorating cakes for all occasions. 3.0 CEU

**CERAMICS ART 2019**

30 Hrs.

A course introducing the student to the art of ceramics. Pouring of molds, the use of glazes, painting, and kiln operation and firing will be taught. Major equipment is furnished. Students furnish their own supplies and may retain the articles which they make. 3.0 CEU

**CHOIR, DIRECTING ART 2017**

30 Hrs.

A course designed to develop technique and knowledge in the directing of choir and public conducting of group singing. It is especially helpful to directors of music programs in churches. 3.0 CEU

**CRAFTS, CREATIVE ART 2003**

30 Hrs.

A hobby type class for the student who wants to learn various crafts. It introduces various crafts including block printing, jewelry making, decoupage, copper enameling, basket weaving, and plastic molding. 3.0 CEU

**CREWEL, EMBROIDERY HEC 3302**

30 Hrs.

A course in the art and skill of crewel embroidery. Emphasis will be on basic embroidery stitches on pincushions, pillows, on roll hangings, and individual designs on kits. The student will learn to make items such as wall pictures, handbags, pillow covers, and slip covers. 3.0 CEU

**DECOUPAGE ART 2005**

30 Hrs.

Instruction trains adults in the artistic decoration of such articles as plaques,

bottles, and jewelry boxes. This antique craft is a centuries-old technique of coloring prints, cutting out all the delicate patterns, pasting them onto a piece of furniture that is suitable, and varnishing the finished piece. 3.0 CEU

**DRIVER EDUCATION DRI 3002** 54 Hrs.

A course designed to teach adults how to drive an automobile. The course consists of thirty-six hours of classroom instruction, six hours of behind-the-wheel training per student, and twelve hours of traffic observation. The fee for this course is \$16.00. 5.4 CEU

**FLORAL DESIGN HEC 3304** 30 Hrs.

Students study and practice the art forms and principles of flower arranging. Areas covered include uses of flowers, containers and accessories, design principles, color and texture, and arrangement for special occasions. Methods of flower and greenery preservation will be taught. 3.0 CEU

**INCOME TAX, FEDERAL ECO 2003** 30 Hrs.

A study and application of the federal personal income tax system. Tax laws, procedures, and practical applications are included. 3.0 CEU

**INCOME TAX, STATE ECO 2003** 15 Hrs.

A study and application of the state personal income tax system. Instruction will include the use of proper forms, exemptions, allowable deductions, and other subjects of interests to the taxpayer. 1.5 CEU

**INTERIOR DESIGN HEC 3305** 30 Hrs.

A course designed to achieve beauty and comfort in the home. Emphasis will be placed on furniture styles, use of color and design in fabrics, floor coverings, and accessories. It includes a study of room arrangement and current trends. Practical application of the basic design elements will be related to student needs and interests. 3.0 CEU

**INVESTMENTS, PERSONAL ECO 2004** 20 Hrs.

A course to give the student a basic understanding of the various facets of the world of finance. Included in this course are such topics as investment funds and figures, risks of investment, dividends, common and preferred stock, meaning of investment, short selling, significance of general financial news, buying on margin, exchanges, mutual funds, and investment management. It is designed to enhance the student's understanding of stocks, bonds, and the market. 2.0 CEU

**KNITTING, ADVANCED HEC 3109** 30 Hrs.

A course for the more advanced students of knitting. Knitting, Beginning is a prerequisite. More difficult and complex knitting will be taught in this class. Individual instruction will be provided students while they work on garments of their choice. 3.0 CEU

**KNITTING, BEGINNING HEC 3109** 30 Hrs.

A course designed to teach the fundamentals of knitting. Students will learn abbreviations, pattern terms, and how to follow directions. Instruction will include basic knitting stitches, the study of yarns, and the construction of simple garments. Students are required to furnish needles and thread. 3.0 CEU

**LANDSCAPING AGR 3303**

30 Hrs.

A course designed to give the student a basic understanding of general landscape work. Included in the course will be instruction relating to the proper care of shrubs, plants, trees, and lawns, as well as placement and arrangement. 3.0 CEU

**NEEDLEPOINT HEC 3302**

30 Hrs.

Instruction in the fundamentals of needlepoint. Instruction will include types of stitches, use of kits, and original designs on needlepoint canvas. Students will learn abbreviations, symbols, and terms, and how to follow directions. Students will work on simple projects of their choice. 3.0 CEU

**PARTY FOODS HEC 3204**

30 Hrs.

A course designed for adults placing stress on foods to be served at special parties, such as teas, receptions, and coffee hours. It will include suggestions for beverages of different types, and all sorts of "finger food" as well as some ideas for refreshments of a more substantial nature. 3.0 CEU

**PUBLIC SPEAKING BUS 3101**

30 Hrs.

A course designed to help adults develop the poise and confidence necessary for speaking effectively to an audience. Fundamental techniques of effective public speaking, including making simple announcements to delivering a formal address, will be taught. Emphasis will be placed on the gathering and organizing of speech material and on the methods of presentation. Students will be given the opportunity to develop short talks and to present them before the class.

3.0 CEU

**READING IMPROVEMENT MDP 3020**

20 Hrs.

A course designed to improve reading comprehension by training to read more rapidly and accurately. It is composed of a series of sessions in which the tachistoscope method of flashing forms on a screen is used—digits, words, phrases, and sentences. Objectives of the course include broadening the span of perception and recognition and increasing speed and comprehension in reading. Principles of vocabulary building will be stressed. 2.0 CEU

**REAL ESTATE, SALES DMK 3502**

30 Hrs.

Instruction organized to meet the needs of the persons attending. This course will include appraisal techniques, capitalization of income and depreciation, market comparisons, cost approach, factors influencing value, ethics, and other relevant topics. 3.0 CEU

**RELIGIONS OF THE WORLD REL 2006**

30 Hrs.

A course designed to introduce the student to various religions of the world. Included in this course is the history and background of Hinduism, Judaism, Shintoism, Taoism, Buddhism, Confucianism, Christianity, Sikhism, and Mohammedanism. 3.0 CEU

**SEWING, ADVANCED HEC 3101**

30 Hrs.

A course based upon general knowledge and skills covered in Sewing, Intermediate, which is a prerequisite for this course. Instruction will include construction of garments using complicated techniques. 3.0 CEU

**SEWING, BEGINNING HEC 3101**

30 Hrs.

A course for beginning sewing students and anyone who would like to brush up on basic sewing techniques or learn about the new and simplified methods of sewing. Instruction will include selection and fitting of patterns, identification and use of necessary sewing equipment, knowledge of fabrics, alterations, pressing, and the construction of simple garments. 3.0 CEU

**SEWING, INTERMEDIATE HEC 3104**

30 Hrs.

A continuation of Sewing, Beginning. It is designed toward the reinforcement of previously developed learnings and the acquisition of sewing skills necessary in the construction of garments. Areas covered will include principles of design, zipper insertion, alterations and placement of pattern, linings and interfacings, and bound buttonholes. 3.0 CEU

**SEWING, KNITS HEC 3114**

30 Hrs.

A course designed as a lecture/demonstration class with an opportunity provided the students to apply and practice what they learn. It will emphasize the quick sewing of knits and the proper stitching of fabric. Instruction in this course will include laying of material and placement of pattern, explanation of pattern coding and directions, use of graph paper and tracing, cutting of material, and the construction of quick-made knit garments. A student of this course should have some basic knowledge of home sewing. 3.0 CEU

**SEWING, TAILORING HEC 3101**

30 Hrs.

A course designed for the student who has considerable skill in sewing. Sewing, Advanced is a prerequisite. This is an advanced class in suit or coat construction. Instruction will consist of selection of pattern and fabric, tailoring techniques, and fitting and pressing involved in making a lined suit or coat. 3.0 CEU



## **OCCUPATIONAL EXTENSION EDUCATION**

Occupational education extension courses are designed to serve adults who are employed or are seeking employment at the skilled, technical, and paraprofessional levels. Persons in professional occupations may also profit from such instruction by learning of new developments in their field.

Any adult 18 years of age or older and no longer in high school who can profit from instruction may enroll. Persons who are employed normally attend training during their nonworking hours to increase their skills and understanding, to improve their competency, and qualify for advancement.

### **AGRICULTURE**

Robeson Technical Institute offers courses in agricultural and biological areas to prepare students, including employed adults who need training or retraining for employment in agriculture or agricultural-related occupations. Most of the courses are vocational in nature and mainly designed for farmers, part-time farmers, and rural homeowners interested in acquiring skills in such courses as:

Agricultural Mechanics	Farmstead Wiring
Basic Bricklaying	Landscaping
Basic Welding	Ornamental Horticulture
Boat Construction	Residential Wiring
Electric Motor Repair	
Farm Mechanics	

### **HEALTH OCCUPATIONS**

Robeson Technical Institute offers Health Education courses that are designed to provide instruction for anyone interested in the improvement of health services to upgrade themselves in their professions or for persons desiring to enter a profession in one of the health occupation fields.

Nurse Aide	Cardiopulmonary Resuscitation
Emergency Medical Technician	Mental Health
Nurse Aide Refresher	Patient Attendant
Practical Nurse Refresher	Prenatal Care
Registered Nurse Refresher	First Aid and Personal Safety
Nurse Assistant	

### **AMBULANCE ATTENDANT**

In cooperation with the North Carolina Department of Human Resources, Office of Emergency Medical Services, Robeson Technical Institute offers ambulance training to meet minimum standards as established by OEMS. The North

Carolina Emergency Medical Services Act of 1973 ratified by the General Assembly in April 1973, issued a mandate that each ambulance attendant, as of January 1, 1976, shall show evidence of completion of an 81-hour basic course in Emergency Medical Technician. However, some ambulance attendants and/or Rescue Squad members had already completed 30 hours in E-03 and E-04 training. Therefore, a Technical Equivalency Program (TEP) course consisting of 51 hours has been developed to enable them to meet the remaining requirements of the Emergency Medical Technician program.

The EMT program should be of particular interest to public and private ambulance attendants, rescue squads, firemen, law enforcement officers, and the general public.

## **Areas of Study**

The EMT – His Role and Responsibilities  
Airway Obstruction and Pulmonary Arrest  
Mechanical Aids to Breathing and Pulmonary Resuscitation  
Cardiac Arrest  
Bleeding, Shock, Airway Care, Pulmonary Resuscitation, and Cardiopulmonary Resuscitation  
Wounds  
Fractures of the Lower and Upper Extremities  
Injuries to the Face, Head, Neck, and Spine  
Injuries to the Eye, Chest, Abdomen, Pelvis, and Genitalia  
Childbirth and Problems of Child Patients  
Lifting and Moving Patients  
Environmental Emergencies  
Operations – Driving, and Maintaining an Emergency Vehicle

## **CIVIL PREPAREDNESS**

In cooperation with the Office of Civil Preparedness, Division of Military and Veteran Affairs, Robeson Technical Institute offers courses in civil preparedness for local emergency agencies, e.g., fire departments, police department, hospitals, rescue squads, as well as the general public.

These courses are designed to prepare these agencies and the general public for emergencies of manmade or material origin, e.g., floods, tornadoes, hurricanes, snowstorms, and nuclear explosion. Preparedness courses are listed below:

	Hours
Community Emergency Preparedness	16
Medical Self-Help	16
Radiological Monitoring Training (Ramont)	16
Radiological Monitoring Training (Ramont Refresher)	3
Shelter Management Exercise	24
Shelter Management Training	8

## **FIRE SERVICE TRAINING**

Robeson Technical Institute offers fire service training to both volunteer and career firemen. This training, taken directly to the local fire departments, allows the men to be trained as an organized group utilizing equipment ordinarily used in controlling fire.

Instruction offered by the Fire Service Training program covers nearly every phase of firemanship. Courses are designed not only to develop necessary skills, but also to develop the fireman's initiative and judgement, safe habits, and correct techniques for using tools and equipment, and to give a variety of fire situation experiences. Materials and texts used are those approved by the International Fire Service Training Association.

Fire Service Training includes the units of firefighting listed below. The order in which the units are studied is left to the discretion of each fire department.

	<b>Minimum Hours</b>
Introduction to Firefighting	42
Forcible Entry	9
Rope Practices	6
Portable Fire Extinguishers	9
Ladder Practices	9
Hose Practices	12
Salvage and Overhaul Practices	9
Fire Stream Practices	12
Fire Apparatus Practices	12
Ventilation	9
Rescue Practices	12
Protective Breathing Equipment	9
Firefighting Procedures	12

In addition to the standard units of training, the following specialized courses are offered:

Teacher Education	Compressed Gas Emergencies
Arson Detection	Hospital Fire Safety
Fire Brigade Training for Industry	Officer Training
First Aid for Firemen	School Bus Evacuation and Fire Safety
Home Fire Safety	Underwater Rescue
Civil Disorder	Area Fire School
Emergency Medical Technician	Hazardous Materials Emergencies
Bombing and Bomb Threats	Radio Communication
Care of Burns	

## **LAW ENFORCEMENT TRAINING**

Robeson Technical Institute offers many courses in Law Enforcement Training. The goal is to promote and provide adequate training and education courses in legal and technological fields that will keep law enforcement officers abreast of advancements in law enforcement techniques.

Introduction to Police Science embraces a total of 15 divisions with a minimum of 160 hours of instruction.

### **Major Divisions**

History and Constitutional Law  
Introduction to Criminal Law  
First Aid  
Laws of Arrest  
Laws of Search and Seizure  
Laws and Rules of Evidence  
General Criminal Investigation  
Motor Vehicle Accident Reporting  
Motor Vehicle Laws  
Liquor Laws  
Recognition and Identification of Drugs-Drug Abuse  
Fundamentals of Supervision  
Laws Related to Riot and Civil Disorder  
Court Structure and Procedures  
Report Writing  
Juveniles  
Defensive Tactics  
Patrol Operations  
Public Relations

In addition to these courses, Robeson Technical Institute offers the following special law enforcement courses designed for those now engaged in law enforcement activities:

Fingerprinting  
Criminal Investigation  
Narcotics Seminar  
Rules of Civil Procedure  
Breathalyzer School  
Firearms School  
Bomb Threat and Disposal Training  
Jail Administration School  
Radar School  
Supervision for Law Enforcement Officers  
Riot Control and Civil Disturbances  
Emergency Medical Technician

## OCCUPATIONAL EXTENSION COURSES

<b>APPLIANCE REPAIR, SMALL APP 3401</b>	70 Hrs.
Training in small appliance service and repair, including basic electricity as it applies to small appliance controls and operation, with shop work on toasters, fans, vacuum cleaners, electric irons, mixers, blenders, etc. 7.0 CEU	
<b>AUTO BODY AND FENDER REPAIR AUT 3001</b>	91 Hrs.
A course to give the student some experience in minor repairs of dents, and straightening or replacing fenders on cars and trucks. Emphasis will be placed on sanding, taping, painting and finishing of parts repaired. 9.1 CEU	
<b>AUTO ENGINE TUNE-UP AUT 3008</b>	70 Hrs.
A study of engine performance with emphasis on diagnostic methods of testing plugs, points, condensers, electrical systems, and carburetors. Modern testing equipment will be used to diagnose trouble with practical problems in troubleshooting. 7.0 CEU	
<b>BLUEPRINT READING BPR 3001</b>	60 Hrs.
A course presenting principles of interpreting blueprints and specifications common to the building trade. Practice in reading details for grades, foundation, floor plans, wall, doors, windows, and roofs will be included. 6.0 CEU	
<b>BOAT CONSTRUCTION CAR 3001</b>	91 Hrs.
A course designed to teach the student how to construct and build a one-man or two-man plywood fishing boat. Topics covered in practical application will include laying out, cutting, fitting, glueing, and nailing the necessary parts together. Finishing the boat with sanding, varnishing and painting methods will also be covered. 9.1 CEU	
<b>CABINET MAKING, INTRODUCTION WWK 3006</b>	84 Hrs.
A course introducing skills for cabinet making. Hand and power woodworking tools will be introduced and utilized by the students. Lectures, demonstrations, and student practical applications concerning cabinet making will take place. This course is designed for the home owner and females as well as males are welcome to enroll. 8.4 CEU	
<b>CARPENTRY, BASIC APP 3001</b>	84 Hrs.
A course covering the fundamentals of all phases of carpentry. Included in the topics to be studied are: hand tools, use of framing square, laying out, cutting joints, framing and remodeling. The student will spend a large amount of time in practical application working with hand tools. 8.4 CEU	
<b>COAST GUARD NAVIGATIONAL AIDS FIS 3015</b>	30 Hrs.
A course to teach proper and safe handling of all types of small boats. Subjects included are safety afloat, seamanship aid to navigation, charts and piloting, mariner's compass, government regulations, and rules of the water. 3.0 CEU	

**DATA PROCESSING, INTRODUCTION EDP 3006**

45 Hrs.

A course designed to introduce the student to basic terminology, concepts and principles of business data processing and programming. Emphasis will be placed on basic ideas the student should master in preparation for learning a programming language. 4.5 CEU

**DRAFTING I DFT 3001**

84 Hrs.

An introduction to drafting and the study of drafting practices. Instruction is given in the selection, use and care of instruments, single-stroke lettering, applied geometry and freehand sketching consisting of orthographic and pictorial drawings. 8.4 CEU

**ELECTRIC DEVICES ELC 3006**

70 Hrs.

A course covering windings of starters, turning of commutators, replacing of bearings, replacing and repair of switches, wiring of motors, replacing of brushes, replacing safety switches, commutator testing, check for shorts and grounds and balancing rotors and armatures. 7.0 CEU

**ENGINE REBUILDING (GASOLINE) AUT 3002**

91 Hrs.

A course stressing the construction and operation of components of internal combustion engines; testing of engine performance; servicing and maintenance of pistons, valves, cams, camshafts, oil pumps; fueling, lubrication, exhaust and electrical systems. The student will practice testing for problems before the engines are serviced to enable him to diagnose problems before overhaul. 9.1 CEU

**FIRST AID, ADVANCED HEA 3002**

15 Hrs.

The Advanced American Red Cross First Aid Course. It deals with field practice of first aid for the student. It is designed to qualify each student for the Advanced Red Cross First Aid Card. 1.5 CEU

**FIRST AID, STANDARD HEA 3001**

12 Hrs.

A course taught by an American Red Cross approved instructor and open to anyone interested in learning how to care for the injured. Among the topics covered are: bandage application, use of tourniquets and temporary splints, care of eye and burn injuries, safe usage and storage of medicines and artificial respiration. 1.2 CEU

**FRONT END ALIGNMENT & WHEEL BALANCING AUT 3007**

60 Hrs.

The theory and practice of front end alignment and balancing techniques of wheels and tires. Stressing the importance of a completely balanced system as related to efficient and economical operation of the automobile. 6.0 CEU

**GAS AND OIL BURNER SERVICING AHR 3004**

60 Hrs.

Instruction for servicemen, steam fitters, sheet metal men and others in the construction and operation of various types of heating equipment, such as high pressure oil burners; installation of conversion burners, servicing of nozzles, electrodes and pumps, and basic controls and circuits. 6.0 CEU

**GASOLINE ENGINE REPAIR, SMALL AUT 3501**

91 Hrs.

A course teaching preventative maintenance, troubleshooting and repair of two-and four-cycle one-cylinder gasoline engines and their power train-auxiliary engines used in industry and elsewhere. 9.1 CEU

**GROUND SCHOOL FOR PILOTS AER 3002**

51 Hrs.

A course including all necessary flight preparatory information, including flight theory, aircraft performance, air traffic rules, radio navigation, flight planning, weather interpretation, and radio communication procedures. Upon completion of the course, students should be prepared to complete successfully the F.A.A. Private Pilot written examination which will be offered. 5.1 CEU

**HUMAN RELATIONS MDP 3019**

20 Hrs.

Presenting the fundamental principles of good supervisor-employee relations and concrete elements which simplify and clarify the complicated subject of human reactions. Material presented has been drawn from the work experiences of successful supervisors who have recognized and practiced the principles of good human relations. 2.0 CEU

**LANDSCAPING AGR 3303**

60 Hrs.

A course to help the student understand the importance of basic planning in developing the landscape, lawn and shrubbery arrangement. Instruction during the quarter will cover planting, fertilizing, pruning, and care of ornamental plants. 6.0 CEU

**MECHANICS, FARM AGR 3101**

70 Hrs.

A basic course offered in conjunction with the Vocational Agriculture Departments in the county for adult farmers and homeowners interested in the broad areas of mechanics. Among the topics covered are carpentry, welding, electricity, plumbing, gasoline engines, electric motors and farm machinery. Each student will be able to spend a certain amount of time in the area of his choice. 7.0 CEU

**NATIONAL ELECTRIC CODE ELC 3001**

45 Hrs.

A course based on the National Electric Code, designed to prepare the experienced electrician for a licensing examination. The course will review the basic principles of electricity and offers a thorough study of the National Electric Code and the North Carolina regulations governing electrical work. 4.5 CEU

**NURSE AIDE NUR 3022**

91 Hrs.

A course designed to enable the nurses aide to play her part in the health team by assisting the professional nurse in giving bedside care to selected patients. The student is taught to give bedside care by lecture, demonstration, and supervised practice in the nursing laboratory. 9.1 CEU

**OPERATING ROOM TECHNIQUES NUR 3025**

42 Hrs.

A course designed to give the nurse a general idea of the physical setup of an operating room and its equipment. The students will acquire skills and thoughtfulness in the care of patients in the operating room and be able to understand the more common types of operative procedures and their relation to the patient's safety and progress. 4.2 CEU

**OUTBOARD MOTOR REPAIR AUT 3503**

60 Hrs.

A basic course dealing with the fundamentals of outboard motors. Students will be taught the basic parts of the motor, maintenance practices, and simple repairs. This class will deal only with outboard motors. 6.0 CEU

**PLUMBING, BASIC APP 3004**

70 Hrs.

Instruction for those having no previous training in plumbing practice, nor special knowledge of the requirements, but who wish to plan, install and maintain simple plumbing systems in accordance with good practice. Included in the topics covered are closets, traps, vents, sewers, valves, faucets, pipe fittings, pipe (cutting and threading), and roughing in a complete plumbing system. 7.0 CEU

**PRINCIPLES OF SUPERVISION MDP 3018**

48 Hrs.

Discussion in depth of the principles of organization and management. Practical approaches to business needs of planning, directing, organizing, coordinating and controlling are stressed. Students explore in detail the supervisor's responsibility for differentiating jobs, delegating authority, planning, decision-making, and improving his personal efficiency. 4.8 CEU

**RADIO & TV REPAIR, ADVANCED ELN 3001**

70 Hrs.

The second in a series of two courses for the servicing and repair of domestic radio and television receivers. Students enrolling in this course should have completed Basic Radio & TV Repair or have an adequate background in basic electronics. Students will divide their time between classroom study and laboratory work. 7.0 CEU

**RADIO & TV REPAIR, BASIC ELN 3004**

70 Hrs.

The first course in a series of two courses to train qualified repairmen for radios, black and white televisions, and color televisions. Instruction will begin with basic electronics and proceed through resistors, capacitors, coils, tubes, and solid-state devices. 7.0 CEU

**REFRIGERATION, INTRODUCTION TO AHR 3005**

70 Hrs.

A course to teach terminology, laws of refrigeration, absolute pressure and temperature, energy conversion units, specific and latent heat, refrigeration cycle, tools, and methods applicable to the refrigeration. 7.0 CEU

**RESIDENTIAL WIRING I ELC 3002**

70 Hrs.

Instruction and application in the fundamentals of blueprint reading, planning, layout and installation of wiring in residential applications, such as services, switch boards, lighting, fusing, wire sizes, branch circuits, conduits and National Electrical Code regulation in actual buildings. 7.0 CEU

**SURVEYING I CIV 3004**

60 Hrs.

A study of basic instrumentation and topography. Students will be exposed to surveying through lecture, demonstration, and practical application. Material to be covered will be profile leveling, cross sections, earthwork computations, transit stadia and transit-tape surveys. 6.0 CEU

**UPHOLSTERY TEX 3014**

70 Hrs.

A course designed to help beginning students understand the basic principles of upholstering, and to give them opportunities to upholster a simple home furnishing. Automotive upholstery will be covered in this course also. 7.0 CEU

**WELDING, BASIC WLD 3004**

70 Hrs.

A course concentrating on the use of AC and DC welding equipment. Welding heats, polarities and electrodes in joining various metals, together with practice in running various welding beads. Safety procedures are emphasized throughout the course in the use of tools and equipment. The student will also acquire practice in using the oxyacetylene torch for cutting, welding and brazing. 7.0 CEU

**TRAINING FOR NEW AND EXPANDING INDUSTRIES**

One of the basic objectives of Robeson Technical Institute is to stimulate the creation of more challenging and rewarding jobs for the people of our area by providing a customized training service to new and expanding industries. Subject to only minimal limitations, this institution, in cooperation with the Industrial Services Division of the State Department of Community Colleges, will design and administer a special program for training the production manpower required by any new or expanding industry creating new job opportunities in North Carolina.

This program includes the following services:

1. Consultation in determining job descriptions; defining areas of training; and in developing appropriate course outlines, training schedules, and materials.
2. Selecting and training of instructors. These instructors may be recruited from the company and from outside sources.
3. Payment of instructors' wages for the duration of the training program.
4. Provision of suitable space for a temporary training facility prior to the completion of the new plant, should such temporary space be required. This may be space with Robeson Technical Institute or leased space in the community.
5. Assumption of installation cost of equipment in the temporary training facility.
6. Payment of one-half the cost of nonsalvageable materials expended in the training program.

The purpose of this service is to help a new or expanding industry meet its immediate manpower needs and to encourage each industry to develop a long-range training program of its own to satisfy its continuing replacement and retaining needs.

For further details of this service, please contact the President, Robeson Technical Institute, or the Director, Industrial Services Division, North Carolina Department of Community Colleges, Raleigh, North Carolina.

## AGRICULTURAL CHEMICALS TECHNOLOGY

### PURPOSE OF CURRICULUM

The agricultural chemicals industry is one of the most rapidly expanding industries in the United States and the world. The utilization of chemicals in agriculture continues at an unprecedented rate. Research in both the fields of chemistry and agriculture results almost daily in new innovations, technologies, and products.

The curriculum in Agricultural Chemicals Technology will prepare students for entry into this field which involves the development, testing, production, sales, and application of pesticides and fertilizers. The industry supplies thousands of sprays, dusts, and granules to the agricultural producer to control a variety of pests. Huge quantities of fertilizers are provided to supply needed nutrients for crop and livestock production to achieve maximum profit at minimum cost in the most efficient manner known to science today.

### CAREER OPPORTUNITIES

Each sector of the agricultural chemicals industry offers employment opportunities for technically educated individuals in sales, research, production, manufacturing, management, and custom farm application. Positions are available in the larger regional companies as well as the smaller local farm supply businesses.

These positions offer challenging responsibilities as fertilizer or pesticide sales representatives, equipment salesmen or servicemen, research technicians, product formulators, store managers, custom applicators, regulatory inspectors, plant operators, and quality control technicians.

New chemicals and new uses for existing agricultural chemicals are developing rapidly, creating challenging and well-paying jobs. The future of the agricultural chemicals field is unlimited.

## AGRICULTURAL CHEMICALS TECHNOLOGY

### FALL QUARTER

ENG 101R	Grammar	5	0	5
MAT 101	Technical Mathematics	5	0	5
BUS 101	Introduction to Business	5	0	5
AGR 100	Agricultural Chemicals Seminar	1	0	1
AGR 125	Animal Science	3	4	5
		<hr/>	<hr/>	<hr/>
		19	4	21

### WINTER QUARTER

ENG 102	Composition	3	0	3
CHM 101	Chemistry	3	4	5
AGR 104	Introduction to Agricultural Economics	3	0	3
AGR 185	Soil Science and Fertilizers	3	6	6
		<hr/>	<hr/>	<hr/>
		12	10	17

**SPRING QUARTER**

ENG 103	Report Writing	3	0	3
CHM 105	Chemistry	4	2	5
AGR 145	Entomology	2	2	3
AGR 170	Plant Science	3	4	5
		<hr/>	<hr/>	<hr/>
		12	8	16

**FALL QUARTER**

BUS 111	Business Math	5	0	5
CHM 106	Chemistry	4	2	5
AGR 228	Livestock Diseases and Parasites	3	4	5
AGR 278	Weed Identification and Control	3	2	4
		<hr/>	<hr/>	<hr/>
		15	8	19

**WINTER QUARTER**

ENG 204	Fundamentals of Speech	5	0	5
CHM 107	Agricultural Chemistry	4	2	5
AGR 187	Fertilizers and Lime	2	4	4
BUS 232	Sales Development	5	0	5
		<hr/>	<hr/>	<hr/>
		16	6	19

**SPRING QUARTER**

SSC 201	Social Science	3	0	3
AGR 155	Plant Diseases	2	4	4
AGR 203	Pesticide and Fertilizer Application	2	4	4
AGR 245	Crop Insects	2	4	4
PSY 206	Applied Psychology	3	0	3
		<hr/>	<hr/>	<hr/>
		12	12	18

## INDUSTRIAL ENGINEERING TECHNOLOGY

**PURPOSE OF CURRICULUM**

New firms moving into North Carolina and established firms expanding their facilities have created increased demands for personnel at all levels involved in production. A need exists for the person who has acquired skills in planning, operating, and controlling the operation of an industrial enterprise for its profitable and continued operation.

The graduate of this curriculum should have a basic knowledge of engineering at the technology level with specific skills in performing industrial engineering functions.

**JOB DESCRIPTION**

The Industrial Engineering Technician studies and records time, motion, methods, and speed involved in performance of maintenance, production, clerical, and other worker operations to establish standard production rate and to improve efficiency. He prepares charts, graphs, and diagrams to illustrate work flow, routing, floor layouts, material handling, and machine utilization. The technician observes workers operating equipment or performing tasks to determine time involved and fatigue rate, using stop watch, motion picture camera, electrical recorder, and similar equipment. He recommends revision of methods of operation or material

handling, alterations in equipment layout or other changes to increase production or improve standards, and aids in planning work assignments in accordance with worker performance, machine capacity, production schedules, and anticipated delays. The technician may be designated according to type of studies analyzed as Methods-Study Analyst, Motion-Study Analyst, Pace Analyst, or Time-Study Analyst I.

## INDUSTRIAL ENGINEERING TECHNOLOGY

### **FALL QUARTER**

ENG 101R	Grammar	5	0	5
DFT 108	Technical Drafting	0	6	2
MAT 101	Technical Mathematics	5	0	5
PHY 101	Physics: Properties of Matter	3	2	4
BUS 101	Introduction to Business	<u>5</u>	<u>0</u>	<u>5</u>
		18	8	21

### **WINTER QUARTER**

ENG 102	Composition	3	0	3
DFT 109	Technical Drafting	0	6	2
MAT 102	Technical Mathematics	5	0	5
PHY 102	Physics: Work, Energy, Power	3	2	4
MEC 111	Manufacturing Processes	<u>3</u>	<u>3</u>	<u>4</u>
		14	11	18

### **SPRING QUARTER**

ENG 103	Report Writing	3	0	3
MAT 103	Technical Mathematics	5	0	5
PHY 103	Physics: Work, Energy, Power	3	2	4
MEC 112	Manufacturing Processes	3	3	4
SSC 201	Social Science	<u>3</u>	<u>0</u>	<u>3</u>
		17	5	19

### **FALL QUARTER**

ENG 204	Fundamentals of Speech	5	0	5
ISC 210	Job Analysis and Evaluation	3	2	4
ISC 120	Principles of Industrial Management	3	2	4
BUS 123	Business Finance	5	0	5
EDP 104	Introduction to Data Processing	<u>3</u>	<u>2</u>	<u>4</u>
		19	6	22

### **WINTER QUARTER**

ISC 231	Manufacturing Cycles	5	0	5
ISC 102	Industrial Safety	3	0	3
ECO 201	Labor Economics and Labor Relations	3	2	4
ISC 211	Work Measurement	3	2	4
ISC 207	Foremanship Supervision	<u>3</u>	<u>0</u>	<u>3</u>
		17	4	19

### **SPRING QUARTER**

PSY 206	Applied Psychology	3	0	3
ISC 202	Quality Control	3	2	4
ISC 220	Management Problems	3	0	3
ISC 204	Value Analysis	3	0	3
ISC 209	Plant Layout	3	2	4
MEC 213	Production Planning	<u>3</u>	<u>0</u>	<u>3</u>
		18	4	20

## INSURANCE

### FALL QUARTER

ENG 101R	Grammar	5	0	5
BUS 101	Introduction to Business	5	0	5
BUS 102	Typewriting	2	3	3
BUS 110	Office Machines	2	3	3
BUS 111	Business Mathematics	5	0	5
		<u>19</u>	<u>6</u>	<u>21</u>

### WINTER QUARTER

ENG 102	Composition	3	0	3
ECO 102	Economics	5	0	5
BUS 103	Typewriting	2	3	3
BUS 115	Business Law	5	0	5
BUS 232	Sales Development	5	0	5
		<u>20</u>	<u>3</u>	<u>21</u>

### SPRING QUARTER

ENG 103	Report Writing	3	0	3
ECO 104	Economics	3	0	3
BUS 116	Business Law	5	0	5
BUS 247	Business Insurance	5	0	5
BUS 123	Business Finance	5	0	5
		<u>21</u>	<u>0</u>	<u>21</u>

### FALL QUARTER

BUS 140	The Insurance Institution	3	0	3
BUS 141	Property and Liability Insurance	3	0	3
ENG 206	Business Communication	3	0	3
BUS 235	Business Management	5	0	5
		<u>14</u>	<u>0</u>	<u>14</u>

### WINTER QUARTER

ENG 204	Fundamentals of Speech	5	0	5
BUS 229	Taxes	3	2	4
BUS 271	Office Management	3	0	3
BUS 240	Life and Health Insurance	3	0	3
		<u>14</u>	<u>2</u>	<u>15</u>

### SPRING QUARTER

SSC 201	Social Science	3	0	3
PSY 206	Applied Psychology	3	0	3
BUS 233	Personnel Management and Supervision	5	0	5
BUS 241	Sales Promotion and Advertising	5	0	5
BUS 250	Social Insurance and Government Regulation	2	0	2
		<u>18</u>	<u>0</u>	<u>18</u>

## REAL ESTATE SALES AND MANAGEMENT

Professionalization of the real estate field is developing rapidly nationally. Real estate sales annually reach billions of dollars in the United States. Personal success in real estate sales and management will require extensive study and training.

The curriculum in Real Estate Sales and Management is designed to provide courses in general education, business administration, and real estate sales and management.

This program is approved by the North Carolina Real Estate Board.

### REAL ESTATE SALES AND MANAGEMENT

#### FALL QUARTER

ENG 101R	Grammar	5	0	5
BUS 101	Introduction to Business	5	0	5
BUS 102	Typewriting	2	3	3
BUS 110	Office Machines	2	3	3
BUS 111	Business Mathematics	5	0	5
		<u>19</u>	<u>6</u>	<u>21</u>

#### WINTER QUARTER

ENG 102	Composition	3	0	3
ECO 102	Economics	5	0	5
BUS 103	Typewriting	2	3	3
BUS 115	Business Law	5	0	5
BUS 232	Sales Development	5	0	5
		<u>20</u>	<u>3</u>	<u>21</u>

#### SPRING QUARTER

ENG 103	Report Writing	3	0	3
ECO 104	Economics	3	0	3
BUS 116	Business Law	5	0	5
BUS 241	Sales Promotion and Advertising	5	0	5
BUS 123	Business Finance	5	0	5
		<u>21</u>	<u>0</u>	<u>21</u>

#### FALL QUARTER

	North Carolina Building Codes	5	0	5
	Business Law of Real Estate	5	0	5
ENG 206	Business Communication	3	0	3
	Residential Construction	3	0	3
BUS 235	Business Management	5	0	5
		<u>21</u>	<u>0</u>	<u>21</u>

#### WINTER QUARTER

ENG 204	Fundamentals of Speech	5	0	5
	Real Estate Management and Brokerage	5	0	5
BUS 229	Taxes	3	2	4
BUS 271	Office Management	3	0	3
	Commercial Construction	3	0	3
		<u>19</u>	<u>2</u>	<u>20</u>

#### SPRING QUARTER

SSC 201	Social Science	3	0	3
PSY 206	Applied Psychology	3	0	3
BUS 233	Personnel Management and Supervision	5	0	5
	Real Estate Appraisal	5	0	5
BUS 247	Business Insurance	5	0	5
		<u>21</u>	<u>0</u>	<u>21</u>

# SMALL GASOLINE ENGINE AND EQUIPMENT REPAIR

## PURPOSE OF CURRICULUM

The student learns to locate the cause of trouble in small engines using appropriate hand tools and instruments; dismantles engines and examines them for defects; replaces or repairs parts, such as rings and bearings, using the proper tools. The student also learns to clean and adjust carburetors, magnetos, and ignition systems. The repaired engines are started and performance tested. Engines are replaced on machines using small engine power.

The curriculum is planned to allow for three options in the field of small engine and equipment repair. Instruction will be provided on universal, multi-purpose engines, marine outboard engines, and motorcycle engines.

## SMALL GASOLINE ENGINE AND EQUIPMENT REPAIR

### FALL QUARTER

MAT 1101	Fundamentals of Math	5	0	0	5
PME 1150	Engine Rebuilding	5	0	15	10
PME 1140	Manufacturer Specifications	5	0	0	5
		<u>15</u>	<u>0</u>	<u>15</u>	<u>20</u>

### WINTER QUARTER

ENG 1101	Reading Improvement	5	0	0	5
PHY 1101	Applied Science	3	2	0	4
PME 1151	Electrical and Fuel Systems	3	0	12	7
WLD 1101	Basic Welding	2	0	3	3
		<u>13</u>	<u>2</u>	<u>15</u>	<u>19</u>

### SPRING QUARTER

ENG 1102	Communication Skills	3	0	0	3
PHY 1102	Applied Science	3	2	0	4
PSY 1101	Human Relations	3	0	0	3
PME 1160	Marine Outboard Engines or	5	0	18	11
PME 1162	Motorcycle Engines	5	0	18	11
		<u>14</u>	<u>2</u>	<u>18</u>	<u>21</u>

### SUMMER QUARTER

PME 1158	Equipment Repair	3	0	6	6
PME 1161	Marine Outboard Engines or	5	0	24	11
PME 1163	Motorcycle Engines	5	0	24	11
		<u>8</u>	<u>0</u>	<u>30</u>	<u>17</u>







**ROBESON TECHNICAL INSTITUTE**

**Drawer A**

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